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ABSTRACT

Costs associated with colleges and universities are addressed in this two-part report. Part one, a 20-page overview, Snyder's "Recent Trends in Higher Education Finance, 1976-77 to 1985-86," reviews rising national trends in tuition, enrollment, degrees, expenditures, and expenditure per student. A wide diversity is noted among institutions in each classification and in different regions of the United States. Numerous graphs and tables supplement the narrative. In part two, the focus piece of the report, "Higher Education Administrative Costs and Staffing," Galambos examines the place of administrative costs in the pattern of expenditures, analyzing elements of the rise in costs. National trends in administrative and support functions, including expenditure and staffing patterns, are reviewed. Case studies of the State University System of Florida and the University of Georgia are given that consider teaching loads and functions of professional personnel. Higher education coordinating agency reports from the following states are included: Colorado, Idaho, Kentucky, Maryland, Missouri, Nebraska, New York, Rhode Island, Tennessee, Texas, and West Virginia. One conclusion is that the escalation of non-teaching professionals in academe suggests a need for institutions to evaluate their staffing patterns to determine whether more efficient utilization of personnel is possible. Appendices include (1) administrative expenditures related to instruction, and (2) 1985 positions by category, state university system. Six figures and 24 tables are provided. (LB)

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Higher Education Administrative Costs:

Continuing the Study

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Higher Education Administrative Costs:

Continuing the Study

Thomas P. Snyder

and

Eva C. Galambos

January 1988

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Foreword

Issues of higher education finance have received intense and widespread attention in recent months. And well they should. Costs associated with colleges and universities have increased significantly. In recent years, the dollars spent by parents and students for a degree, the dollars spent by institutions for such activities as instruction and administration, and the dollars spent by State governments for support of their campuses and students have escalated beyond what can be accounted for by inflation.

What are we paying for? What do we receive? These are two basic and legitimate questions. Parents, students, educators, governors, legislators, the media, and taxpayers are asking these questions today. It is appropriate, however, that we not only ask these questions, but that we also collect, analyze, and disseminate information that will assist the quest for answers.

It is for these reasons that the Office of Educational Research and Improvement is pleased to publish this timely report. The Department's Center for Education Statistics furnished the opening paper, "Recent Trends in Higher Education Finance." This article, written by CES Statistician Thomas D. Snyder, provides background data for studying the rise in college expenditures. The focus piece, "Higher Education Administrative Costs and Staffing," by Dr. Eva Galambos, consultant, examines the place of administrative costs in the pattern of expenditures. In the context of a long time frame, she analyzes elements of the rise in costs we are experiencing today. She also presents some case studies which indicate that growth in administrative staff has contributed to escalating costs. Dr. Galambos' article is a valuable contribution to understanding trends in higher education expenditures.

The Department continues to expand its data-gathering and research work on these issues. We are committed to those efforts that heighten consciousness and deepen our understanding of college costs. This report should help to stimulate additional studies and analyses. At least we hope so.

Chester E. Finn, Jr.
Assistant Secretary and
Counselor to the Secretary

Acknowledgments

Dr. Galambos and Mr. Snyder wish to express their appreciation for the comments and suggestions provided in the course of reviewing their manuscripts.

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Part 1

Recent Trends in Higher Education Finance, 1976-77 to 1985-86

Recent Trends in Higher Education Finance, 1976-77 to 1985-86

by Thomas D. Snyder

Higher education is major segment of the United States economy that now spends over $120 billion a year. The Nation's colleges and universities provide a wide diversity of programs that serve critical individual and societal needs. But many students find it more and more difficult to finance their studies. Large tuition hikes have occurred at numerous institutions. Even though college enrollment has stabilized, college expenditures continue to rise. The increasing college expenditures may be attributed to a number of factors. There have been increases in faculty salaries, administrative costs, and other expenses. The two components of this report review some of the factors involved in the expenditure increases. This article compares recent trends in higher education to provide a background for studying the rise in college expenditures. The following paper by Dr. Eva Galambos examines certain trends in higher education administration.

Tuition

In recent years, college tuition charges have increased rapidly. After adjustment for inflation, average tuition charges rose 35 percent at public universities[1] and 31 percent at public 2-year colleges between 1980-81 and 1986-87 (see Table 1.1). Tuition has increased at a faster rate at private colleges: private universities raised tuition by 47 percent and other private 4-year colleges increased tuition by 38 percent over this period. In 1986-87, the average tuition charge was about $1,100 for public colleges and $6,200 for private colleges. Combined annual tuition, room, and board charges for all types of public institutions averaged $3,800 and for private colleges, $9,500.

Mr. Snyder is a statistician with the U.S. Department of Education's Center for Education Statistics and Project Director for the annual Digest of Education Statistics.

When adjusted for inflation, tuition charges also stood at a relatively high point in the early 1970s. Even so, the average charge in 1986-87 at public universities is about 8 percent higher than for 1972-73, after adjustment for inflation. Due to the more rapid rises at private universities, the 1986-87 constant dollar charge is 39 percent more than the 1972-73 charge. The 2-year colleges show a similar pattern. The 1986-87 charges are not much more than the high points of the early 1970s for the public colleges, but the private 2-year colleges have shown substantial rises.

Although inflation rose by less than 4 percent during the 12 months preceding July 1987, data collected by the College Board indicate that tuition has risen 6 percent for public 4-year colleges and 8 percent for private 4-year colleges for the 1987-88 academic year.[2]

Enrollment

Despite the continuing rises in college tuition, overall college enrollment has remained steady. College enrollment generally rose during the late 1970s at all types of institutions.[3] Since 1980, increases have been modest and enrollment has actually declined at some of types of institutions. Between 1976-77 and 1980-81, private university full-time-equivalent (FTE) enrollment rose by 8 percent and then fell slightly by 1985 (see Table 1.3 and Figures). Private 4-year colleges showed a similar pattern with FTE enrollments rising 9 percent between 1976-77 and 1980-81, but these institutions continued to grow by another 3 percent by 1985. Enrollment at private 2-year colleges rose 5 percent during the late 1970s, but fell 7 percent in the early 1980s.

Public college enrollments have shown smaller changes. Public university (FTE) enrollment increased by 4 percent between 1976-77 and 1980-81, but remained virtually unchanged during the 1980 to 1985 period. Public 4-year colleges also rose by 4 percent in the late 1970s and continued to increase another 4 percent between fall 1980 and fall 1985. Public 2-year FTE enrollment increased 6 percent in the late 1970s and declined 1 percent in the early 1980s.

These enrollment data do not verify any large scale movement of students to less expensive institutions between 1976 and 1985 (see Table 1.4). The proportion of students at universities has shown only modest changes. In general, enrollment increases have been slightly larger at 4-year colleges. FTE enrollment at public universities and 4-year colleges has increased less rapidly than at private universities and 4-year colleges.[4] Overall, a higher proportion of students attended private colleges in 1985 than in 1976, although the shift was very small.

Degrees

A comparison of data on the types of degrees conferred provides important information about the focus of institutions. In recent years, public and private universities and public 4-year colleges have awarded an increasing proportion of their degrees at the bachelor's degree level (see Figures 1, 2, 4, and 5). But the percentage of degrees awarded at each level differs markedly by type and control of institution.

Barely half of the degrees awarded by private universities are at the bachelor's level (see Tables 1.5 and 1.6). About 32 percent of the degrees are master's degrees, 5 percent are doctor's degrees and 11 percent are first-professional degrees.[5] Between 1976-77 and 1985-86, there was a small increase in the percentage of degrees at the bachelor's and first-professional levels, with a corresponding decrease at the master's and doctor's degree levels (see Figure 4). In 1985-86, the private 4-year colleges awarded 72 percent of their degrees at the bachelor's level, 19 percent at the master's level, 1 percent at the doctor's level and 8 percent at the first-professional level.

Public universities awarded about 29 percent of their degrees at the graduate level, similar to the percentage for the private 4-year colleges. But, these public universities accounted for large numbers of the Nation's advanced degrees. In 1985-86, these 94 public universities awarded 53 percent of all doctor's degrees as well as 29 percent of all bachelor's degrees.[6] The large size of these institutions reflects extensive offerings at both the undergraduate and graduate degree levels. The public 4-year colleges were more distinctly involved in undergraduate education, awarding about 78 percent of their degrees at the bachelor's degree level and 18 percent at the master's level. In general, private institutions award a higher proportion of their degrees at the graduate level than public institutions.

Expenditures

These varying missions can have a pronounced impact on the expenditure patterns of colleges and universities. This analysis examines the educational and general expenditures of institutions rather than current-fund expenditures.[7] Educational and general expenditures are more comparable among different types of institutions since they exclude expenditures for hospitals, student housing facilities, and other primarily self-supporting activities that vary greatly in scale and importance from one institution to another.

Comparisons between public and private colleges are somewhat confounded by differences in accounting practices. For example, private colleges traditionally use a higher proportion of their funds to provide scholarships to both financially needy and academically talented students. In some cases, certain college personnel and debt service expenditures are paid from State accounts and do not show on institutional records of public institutions. Public institutions are much more likely to be part of college systems where some administrative costs may be borne by the main campus. Differences in expenditures between public and private colleges are somewhat overstated because of these accounting variations. Nevertheless, changes in expenditure patterns over time can provide a basis for comparing finance data, by type of institution.

There has been a small decline in the proportion of educational and general budgets spent on instruction between 1976-77 and 1985-86 (see Tables 1.7 and 1.8). Also, there has been a reduction in the proportion of funds spent on maintaining college libraries. The proportion of college expenditures for plant operation and maintenance has generally declined. In contrast, there has

been an increase in administrative costs[8] among all types of institutions. Scholarship and fellowship outlays have generally risen.[9] The percentage spent for research at public universities and 4-year colleges rose over this 10-year period, while declining for private universities and 4-year colleges.

A more detailed look at the 1985-86 data for public and private universities shows similar expenditure patterns. Both public and private universities spend larger portions of their budgets on research than other types of higher education institutions. This reflects their emphasis on graduate programs noted above. The most notable difference between public and private universities is the proportion spent on public service and scholarships and fellowships. The public and private 4-year colleges have somewhat different patterns. Private 4-year colleges spend a lower proportion on instruction and a higher proportion on administration than public 4-year colleges. For example, private 4-year colleges spent 35 percent of their budget on instruction and 30 percent on administration compared to 45 percent on instruction and 25 percent on administration at public other 4-year colleges.

There are a number of factors that contribute to higher administrative costs at private colleges. For example, private colleges often have more financial aid services than public colleges. Private colleges derive their revenue from a wider variety of sources, which adds administrative complexity. Also, some of the difference may be due to the smaller size of private 4-year colleges. The larger public colleges may be able to achieve some economies of scale and thereby reduce administration overhead per student.

The public 2-year colleges spent a higher proportion of their funds on instruction than the other types of colleges. This is partly due to the focus of 2-year colleges on beginning students and little or no emphasis on research. Student services also occupy a smaller portion of their budgets because few 2-year college students live on campus.

Expenditure per Student

Another way of examining college expenditures is on a per student basis. In 1985-86, public universities spent an average of $11,300 per full-time-equivalent (FTE) student on educational and general expenses. Public 4-year colleges spent $8,200 and public 2-year colleges, $4,200. Expenditures per FTE student at private colleges were higher: $18,800 at private universities and $9,100 at other private 4-year colleges (see Tables 1.9 and 1.11).

Overall, public universities spent about 37 percent more per student than public 4-year colleges in 1985-86, but this difference varied by expenditure category. Administration costs per student were about equal in public universities and public 4-year colleges. Instruction costs were somewhat higher at universities than 4-year colleges, partly because of the greater emphasis on graduate programs where classes are smaller and facilities more elaborate. More than half of the difference in per student spending between public universities and public 4-year colleges was due to research expenditures.

The public 2-year expenditure per student was lower than at any other type of college. The low expenditure may be partially attributed to lower faculty and support staff salaries, higher student-faculty ratios, less extensive library facilities and school grounds and fewer scholarships. These economies enable 2-year colleges to offer a variety of programs, including expensive technical courses, with lower overall expenditures than other types of colleges.

Private colleges have more diverse expenditure patterns than the public colleges. In 1985-86, private universities spent more than twice as much per student as other private 4-year colleges. About one-third of the difference is in expenditures on research. There was also a large difference in the per student instruction expenditure between universities and 4-year colleges. This is partly due to the university's emphasis on graduate school education, with attendant low student-faculty ratios, and to the much higher salaries for faculty at private universities. In 1985-86, faculty at private universities earned an average of 40 percent more than faculty at private 4-year colleges.[10] Together, instruction and research accounted for more than 70 percent of the difference in per student expenditures between these two types of institutions.

The private 2-year colleges showed expenditure levels similar to those of public 2-year colleges. Like other types of private colleges, the private 2-year colleges tended to spend more on administration and scholarships and fellowships than their public sector counterparts.

Educational and general expenditures per student grew nearly 14 percent at public universities and other public 4-year colleges between 1976-77 and 1985-86, after adjustment for inflation (see Table 1.10 and Figures 1 and 2). At private universities the growth was 22 percent and at private 4-year colleges, 20 percent (see Table 1.12). Most of these increases occurred between 1982-83 and 1985-86, reflecting the rapid rise in tuition during this period. For each type of institution, the private sector expenditures rose faster than the public sector expenditures.

Between 1976-77 and 1985-86, public university and 4-year college expenditures per student grew more rapidly than at public 2-year colleges. The two fastest growing categories of expenditures at public universities were administration and research. The per student administration expenditures at public universities increased by 20 percent compared to 10 percent for instruction. Research expenditures per student rose 22 percent during this same time period. The introduction of new research programs may have contributed to some of the increase in administration expenditures. At public 4-year colleges, administration rose by 25 percent compared to 10 percent for instruction. There were also increases of 32 percent in per student expenditures on research and 29 percent on public service. At public 2-year colleges, per student administration expenditures rose 21 percent while per student instruction expenditures rose by 6 percent. In general, expenditures for administration and research at public institutions rose more rapidly than other types of expenditures.

Much the same pattern may be observed among the private institutions. At private universities, administration expenditures per student rose 39 percent between 1976-77 and 1986-86 compared to the 21 percent rise in instruction expenditures per student. Again, most of these increases occurred between 1982-83 and 1985-86. There were also large increases in expenditures for scholarships and fellowships of 37 percent at universities and 39 percent at 4-year colleges. Between 1976-77 and 1985-86, private universities and 4-year colleges exhibited faster growth than public universities and 4-year colleges in nearly all expenditure categories, except for research.

Available data indicate that the difference in per student expenditures between public and private colleges widened between 1976-77 and 1985-86. In 1976-77, private universities spent 55 percent more per student than public universities, but the difference widened to 66 percent in 1985-86. Similarly, the private 4-year colleges spent 5 percent more per student in 1976-77 and 11 percent more in 1985-86.

As can be quickly gleaned from this introduction, college finance is a highly complex and difficult subject. At the most basic level, the data show rapid increases in expenditures, particularly administration expenditures, between 1982-83 and 1985-86. The recent increases in tuition charges make the subject more perplexing. Even though total enrollments remain at nearly record levels, many people are concerned that some groups of students are finding college financially unobtainable.

These pages highlight only some of the major national trends. There is wide diversity among institutions in each classification and in different regions of the country. A more detailed examination of the increase in expenditures would be appropriate since the national aggregate data do not give a complete view of the rise in college expenditures.

Footnotes

[1]Public and private institutions are divided into three types of institutions: universities, 4-year colleges, and 2-year colleges. The universities have extensive graduate level instruction. The 4-year colleges generally emphasize undergraduate level instruction. The 2-year colleges offer academic or technical instruction leading to an associate degree.

[2]College Board, news release of August 7, 1987, "College Board Survey Indicates College Tuition and Fees Will Rise 5 to 8 Percent for 1987-88."

[3]College enrollment data are calculated in full-time equivalents. Data are only for institutions reporting both enrollment and finance data in a given year. Proprietary institutions are excluded. U.S. Department of Eduction, Center for Education Statistics, "Fall enrollment in Colleges and Universities."

[4]These small enrollment shifts suggest that students have a relatively inelastic demand for college education compared to other goods and services.

[5]First-professional degrees include degrees conferred in law, medicine, dentistry, optometry, veterinary science and several other small fields.

[6]Based on special tabulation from the "Degrees and Other Formal Awards Conferred, 1985-86" survey.

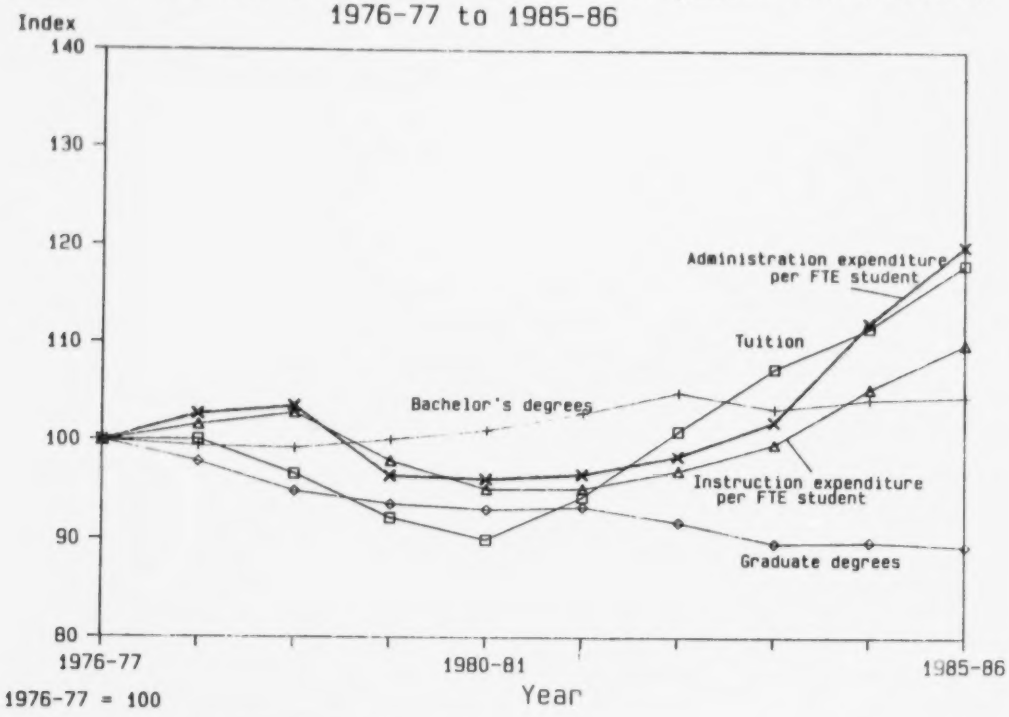
[7]Expenditure data are only for institutions reporting both enrollment and finance data. Proprietary institutions are excluded. U.S. Department of Education Center for Education Statistics, "Fall Enrollment in Colleges and Universities" and "Financial Statistics of Institutions of Higher Education" surveys.

[8]Administration includes institutional support, academic support less libraries, and student services.

[9]Consistent with national standards developed by the National Association of College and University School Business Officers and the American Institute of Certified Public Accountants, scholarships and fellowships given to students selected by individual higher education institutions are classified as education and general expenditures. The funds include both stipends paid directly to students, and to an unknown extent, remissions or waivers of tuition payments. About half of scholarship and fellowship expeditures are drawn from unrestricted current funds that can be used by institutions for any purpose, such as faculty salaries or library books. Allocation of such unrestricted funds to student stipends reflects a decision that a diverse student body is an important part of the institution's educational program, just as faculty salaries or library books would be. It is also a plausible argument that the restricted scholarship funds have the effect of diversifying the student body and thereby contribute to the education program. All these amounts omit Federal Pell grants, however, on the grounds that they support Federal rather than institutional purpose.

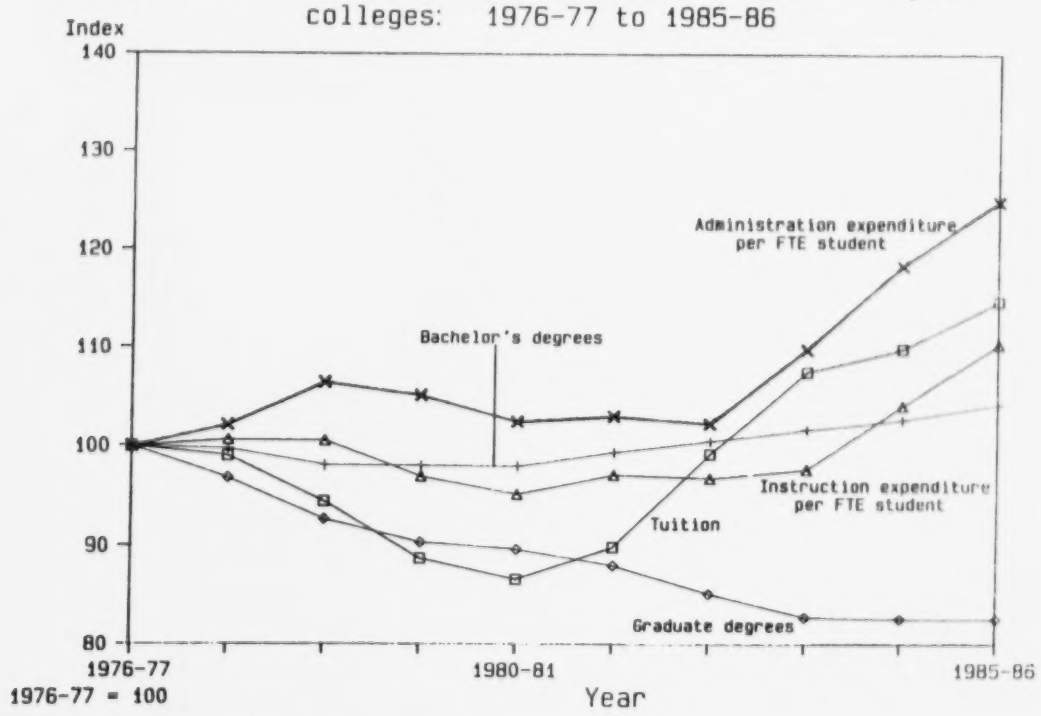
[10]In 1985-86, faculty salaries averaged $39,519 at private universities and $28,198 at private 4-year colleges. There was much less divergence at public universities ($35,835) and public 4-year colleges ($32,757). U.S. Department of Education, Center for Education Statistics, Digest of Education Statistics, 1987.

Figure 1.--Index of selected measures of public universities: 1976-77 to 1985-86



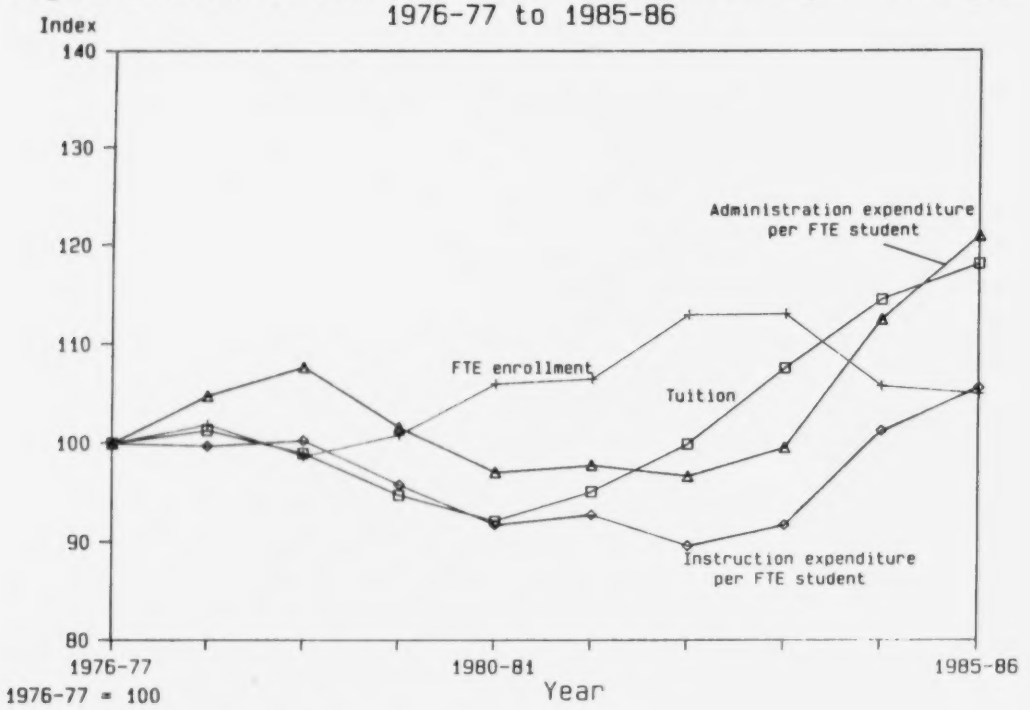
NOTE: All finance data are in constant dollars, adjusted by the Consumer Price Index.

Figure 2.--Index of selected measures of public 4-year colleges: 1976-77 to 1985-86



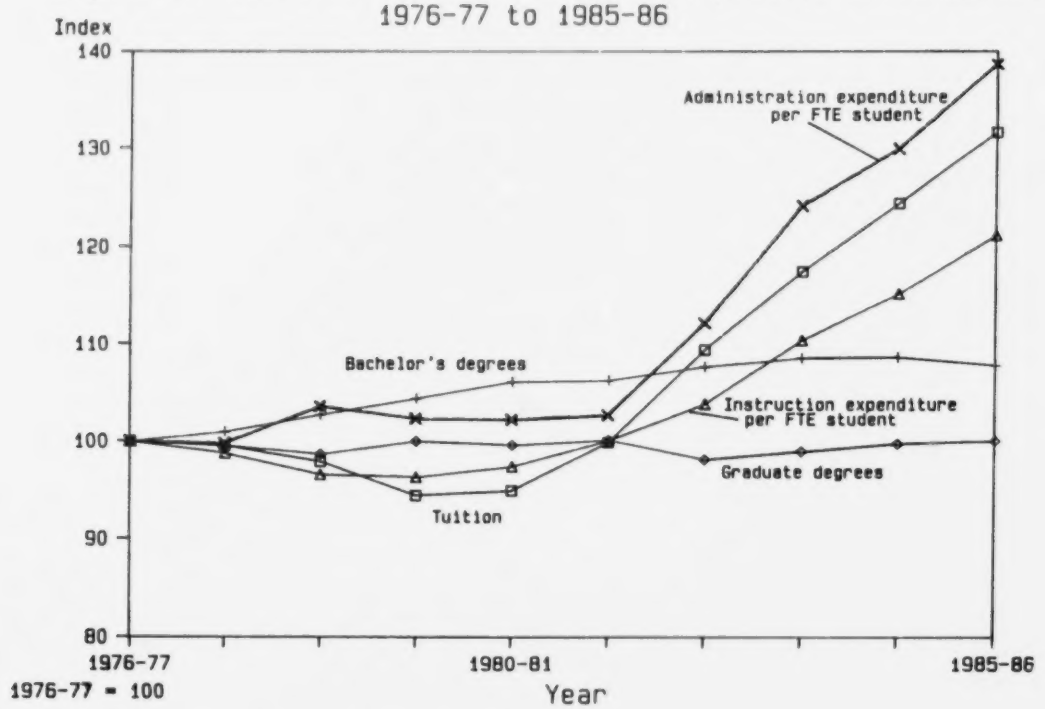
NOTE: All finance data are in constant dollars, adjusted by the Consumer Price Index.

Figure 3--Index of selected measures of public 2-year colleges: 1976-77 to 1985-86



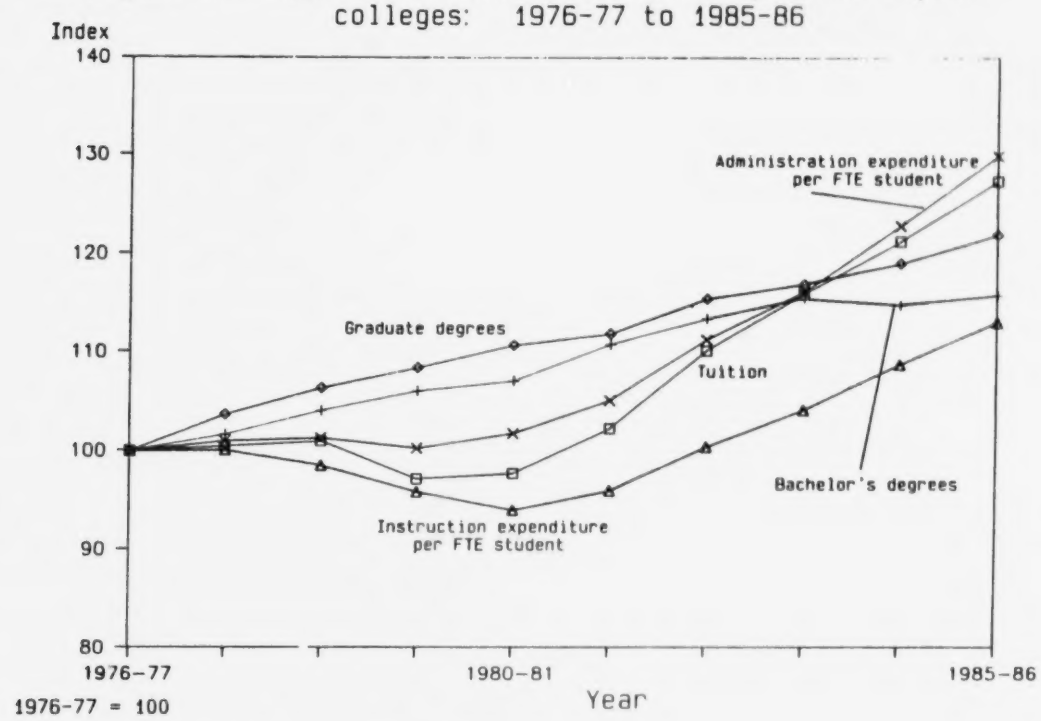
NOTE: All finance data are in constant dollars, adjusted by the Consumer Price Index.

Figure 4.--Index of selected measures of private universities: 1976-77 to 1985-86



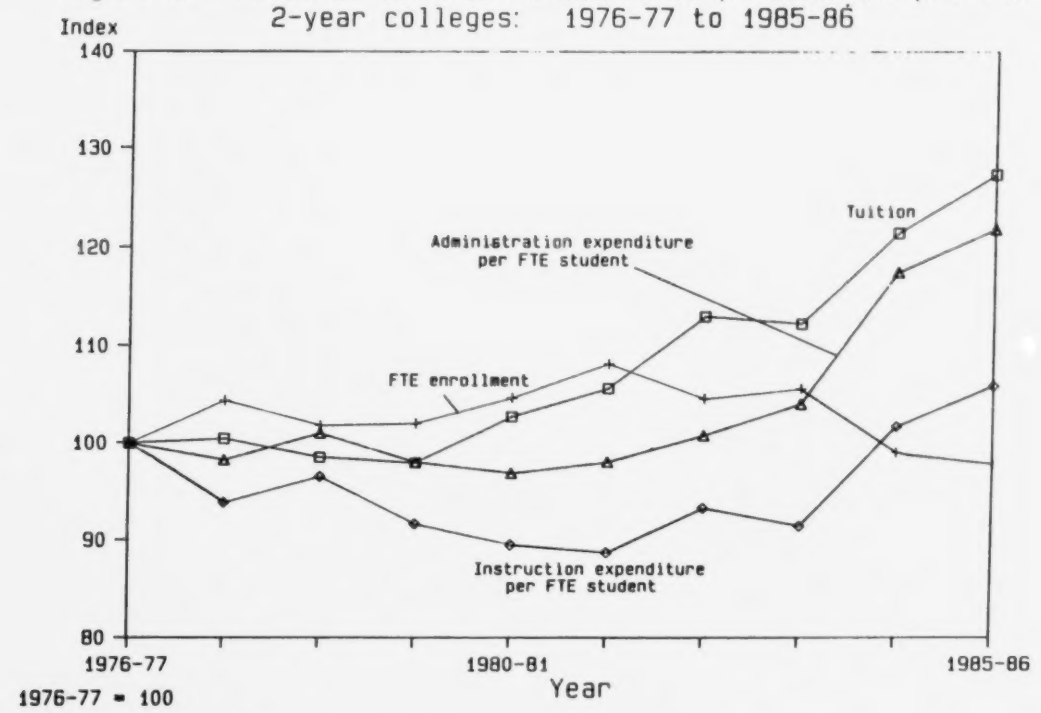
NOTE: All finance data are in constant dollars, adjusted by the Consumer Price Index.

Figure 5.--Index of selected measures of private 4-year colleges: 1976-77 to 1985-86



NOTE: All finance data are in constant dollars, adjusted by the Consumer Price Index.

Figure 6.--Index of selected measures of private (nonprofit) 2-year colleges: 1976-77 to 1985-86



NOTE: All finance data are in constant dollars, adjusted by the Consumer Price Index.

Table 1.1--Average undergraduate tuition charges in institutions of higher education, by type and control of institution: 1969-70 to 1986-87
[In constant 1986-87 dollars]

Year	Public institutions				Private institutions			
	Total	University	Other 4-year	2-year	Total	University	Other 4-year	2-year
1969-70 ...	951	1,258	901	524	4,515	5,328	4,324	3,046
1970-71 ...	983	1,339	930	524	4,717	5,546	4,490	3,106
1971-72 ...	1,017	1,422	957	519	4,920	5,767	4,653	3,169
1972-73 ...	1,058	1,471	1,182	605	4,932	5,785	4,797	3,173
1973-74 ...	1,045	1,386	1,104	654	4,744	5,665	4,592	3,108
1974-75 ...	928	1,287	962	595	4,547	5,615	4,197	2,936
1975-76 ...	868	1,288	941	491	4,557	5,778	4,180	2,852
1976-77 ...	908	1,306	1,069	536	4,677	5,784	4,457	3,018
1977-78 ...	909	1,307	1,059	544	4,661	5,755	4,476	3,030
1978-79 ...	882	1,262	1,010	531	4,656	5,662	4,500	2,973
1979-80 ...	835	1,204	949	509	4,485	5,461	4,328	2,955
1980-81 ...	813	1,175	926	495	4,493	5,491	4,355	3,100
1981-82 ...	852	1,232	961	511	4,695	5,776	4,557	3,188
1982-83 ...	904	1,319	1,061	536	5,031	6,327	4,906	3,409
1983-84 ...	974	1,403	1,150	577	5,302	6,795	5,165	3,387
1984-85 ...	1,022	1,458	1,175	614	5,591	7,199	5,402	3,666
1985-86 * .	1,063	1,544	1,227	634	5,878	7,616	5,674	3,844
1986-87 * .	1,100	1,590	1,270	650	6,230	8,060	6,000	4,060
Percent change, 1980-81 to 1986-87 ...	35.3	35.3	37.1	31.4	38.7	46.8	37.8	31.0

* Estimated.

NOTE.--Data are for the entire academic year and are average charges paid by students. Tuition and fees were calculated on the basis of full-time-equivalent undergraduates, but are not adjusted to reflect student residency.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Institutional Characteristics of Colleges and Universities" and "Fall Enrollent in Colleges and Universities" surveys.

Table 1.2.--Full-time-equivalent enrollment in institutions of higher education, by type and control of institution: Fall 1976 to fall 1985

Fall	All institutions	Public institutions				Private institutions *			
		Total	University	Other 4-year	2-year	Total	University	Other 4-year	2-year
1976	8,200,745	6,288,843	1,755,294	2,220,210	2,313,339	1,911,902	565,461	1,255,816	90,625
1977	8,370,496	6,396,476	1,768,116	2,270,955	2,357,405	1,974,020	584,188	1,295,241	94,591
1978	8,292,122	6,279,199	1,755,504	2,240,622	2,283,073	2,012,923	595,932	1,324,734	92,257
1979	8,424,682	6,392,616	1,793,755	2,265,549	2,333,312	2,032,066	603,362	1,336,257	92,447
1980	8,669,492	6,594,542	1,830,878	2,311,412	2,452,252	2,074,950	609,055	1,371,062	94,833
1981	8,712,252	6,610,930	1,834,000	2,313,553	2,463,377	2,101,322	612,863	1,390,448	98,011
1982	8,898,693	6,831,565	1,841,774	2,376,231	2,613,560	2,067,128	588,541	1,383,840	94,747
1983	8,995,927	6,881,480	1,838,021	2,427,787	2,615,672	2,114,447	605,811	1,412,944	95,692
1984	8,786,989	6,684,664	1,826,583	2,411,312	2,446,769	2,102,325	605,116	1,407,450	89,759
1985	8,771,876	6,667,781	1,830,150	2,409,472	2,428,159	2,104,095	607,451	1,407,976	88,668

* Excludes proprietary institutions.

NOTE.--Excludes institutions without both enrollment and finance data.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Fall Enrollent in Colleges and Universities" surveys.

Table 1.3.--Index of full-time-equivalent enrollment in institutions of higher education, by type and control of institution: Fall 1976 to fall 1985
[1976-77 = 100]

Fall	All institutions	Public institutions				Private institutions*			
		Total	University	Other 4-year	2-year	Total	University	Other 4-year	2-year
1976	100	100	100	100	100	100	100	100	100
1977	102	102	101	102	102	103	103	103	104
1978	101	100	100	101	99	105	105	105	102
1979	103	102	102	102	101	106	107	106	102
1980	106	105	104	104	106	109	108	109	105
1981	106	105	104	104	106	110	108	111	108
1982	109	109	105	107	113	108	104	110	105
1983	110	109	105	109	113	111	107	113	106
1984	107	106	104	109	106	110	107	112	99
1985	107	106	104	109	105	110	107	112	98

* Excludes proprietary institutions.

NOTE.--Excludes institutions without both enrollment and finance data.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Fall Enrollent in Colleges and Universities" surveys.

Table 1.4.--Full-time-equivalent enrollment in institutions of higher education, by type and control of institution: Fall 1976 to fall 1985
[Percentage distribution]

Fall	All institutions	Public institutions				Private institutions *			
		Total	University	Other 4-year	2-year	Total	University	Other 4-year	2-year
1976	100.0	76.7	21.4	27.1	28.2	23.3	6.9	15.3	1.1
1977	100.0	76.4	21.1	27.1	28.2	23.6	7.0	15.5	1.1
1978	100.0	75.7	21.2	27.0	27.5	24.3	7.2	16.0	1.1
1979	100.0	75.9	21.3	26.9	27.7	24.1	7.2	15.9	1.1
1980	100.0	76.1	21.1	26.7	28.3	23.9	7.0	15.8	1.1
1981	100.0	75.9	21.1	26.6	28.3	24.1	7.0	16.0	1.1
1982	100.0	76.8	20.7	26.7	29.4	23.2	6.6	15.6	1.1
1983	100.0	76.5	20.4	27.0	29.1	23.5	6.7	15.7	1.1
1984	100.0	76.1	20.8	27.4	27.8	23.9	6.9	16.0	1.0
1985	100.0	76.0	20.9	27.5	27.7	24.0	6.9	16.1	1.0

* Excludes proprietary institutions.

NOTE.--Excludes institutions without both enrollment and finance data.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Fall Enrollent in Colleges and Universities" surveys.

Table 1.5.--Degrees conferred by institutions of higher education, by type and control of institution: 1973-74 to 1985-86

Type of institution and year	Public institutions				Private institutions			
	Bachelor's	Master's	Doctor's	First-professional	Bachelor's	Master's	Doctor's	First-professional
Universities								
1973-74 ...	282,918	93,670	19,459	15,386	81,333	52,881	9,598	16,069
1974-75 ...	276,759	94,812	19,499	15,173	80,035	54,939	9,188	16,190
1975-76 ...	278,147	98,311	18,901	16,314	80,239	55,212	9,063	17,502
1976-77 ...	275,821	98,725	18,384	16,799	80,021	55,081	8,610	17,512
1977-78 ...	274,202	96,267	17,651	17,068	80,791	55,122	8,278	17,405
1978-79 ...	273,733	92,093	17,830	17,126	82,231	53,619	8,283	18,199
1979-80 ...	276,172	90,287	17,631	17,354	83,541	54,740	8,188	18,276
1980-81 ...	278,841	89,208	17,701	17,631	84,897	54,079	8,353	18,441
1981-82 ...	283,816	89,298	17,776	17,851	85,036	54,686	8,162	18,444
1982-83 ...	289,544	87,198	17,616	18,038	86,150	53,046	7,948	18,678
1983-84 ...	285,006	84,733	17,805	17,505	86,866	52,920	8,323	19,100
1984-85 ...	287,746	84,221	17,939	18,108	86,932	53,767	8,114	19,120
1985-86 ...	288,621	84,151	17,964	17,566	86,246	54,154	8,356	18,741
Other 4-year								
1973-74 ...	368,626	90,962	2,351	7,822	212,767	39,520	2,408	14,539
1974-75 ...	358,026	98,992	2,677	8,439	207,974	43,707	2,719	16,114
1975-76 ...	356,996	107,987	2,850	9,452	210,319	50,261	3,250	19,381
1976-77 ...	354,612	110,176	2,845	9,545	209,057	53,182	3,393	20,503
1977-78 ...	353,662	105,832	2,805	10,029	212,510	54,399	3,397	22,079
1978-79 ...	347,933	99,923	2,987	10,659	217,456	55,444	3,630	22,864
1979-80 ...	347,716	97,186	2,977	10,588	221,600	55,838	3,819	23,868
1980-81 ...	347,540	95,176	3,194	11,497	223,664	57,183	3,710	24,387
1981-82 ...	352,596	92,997	3,113	11,760	231,486	58,565	3,656	23,977
1982-83 ...	356,640	89,048	3,570	11,719	236,906	60,629	3,625	24,701
1983-84 ...	360,965	85,960	3,400	12,081	241,310	60,650	3,729	25,721
1984-85 ...	364,487	85,779	3,398	12,044	239,913	62,484	3,476	25,791
1985-86 ...	369,948	85,752	3,469	12,002	241,987	64,510	3,848	25,587

SOURCE: U.S. Department of Education, Center for Education Statistics, "Degrees and Other Formal Awards Conferred" surveys.

Table 1.6.--Degrees conferred by institutions of higher education, by type and control of institution: 1973-74 to 1985-86
[Percentage distribution]

Type of institution and year	Public institutions				Private institutions			
	Bachelor's	Master's	Doctor's	First-professional	Bachelor's	Master's	Doctor's	First-professional
Universities								
1973-74 ...	68.8	22.8	4.7	3.7	50.9	33.1	6.0	10.1
1974-75 ...	68.1	23.3	4.8	3.7	49.9	34.3	5.7	10.1
1975-76 ...	67.6	23.9	4.6	4.0	49.5	34.1	5.6	10.8
1976-77 ...	67.3	24.1	4.5	4.1	49.6	34.2	5.3	10.9
1977-78 ...	67.7	23.8	4.4	4.2	50.0	34.1	5.1	10.8
1978-79 ...	68.3	23.0	4.4	4.3	50.7	33.0	5.1	11.2
1979-80 ...	68.8	22.5	4.4	4.3	50.7	33.2	5.0	11.1
1980-81 ...	69.1	22.1	4.4	4.4	51.2	32.6	5.0	11.1
1981-82 ...	69.4	21.8	4.3	4.4	51.1	32.9	4.9	11.1
1982-83 ...	70.2	21.1	4.3	4.4	52.0	32.0	4.8	11.3
1983-84 ...	70.4	20.9	4.4	4.3	52.0	31.6	5.0	11.4
1984-85 ...	70.5	20.6	4.4	4.4	51.8	32.0	4.8	11.4
1985-86 ...	70.7	20.6	4.4	4.3	51.5	32.3	5.0	11.2
Other 4-year								
1973-74 ...	78.5	19.4	0.5	1.7	79.0	14.7	0.9	5.4
1974-75 ...	76.5	21.1	0.6	1.8	76.9	16.2	1.0	6.0
1975-76 ...	74.8	22.6	0.6	2.0	74.3	17.7	1.1	6.8
1976-77 ...	74.3	23.1	0.6	2.0	73.1	18.6	1.2	7.2
1977-78 ...	74.9	22.4	0.6	2.1	72.7	18.6	1.2	7.6
1978-79 ...	75.4	21.7	0.6	2.3	72.6	18.5	1.2	7.6
1979-80 ...	75.8	21.2	0.6	2.3	72.6	18.3	1.3	7.8
1980-81 ...	76.0	20.8	0.7	2.5	72.4	18.5	1.2	7.9
1981-82 ...	76.6	20.2	0.7	2.6	72.9	18.4	1.2	7.5
1982-83 ...	77.4	19.3	0.8	2.5	72.7	18.6	1.1	7.6
1983-84 ...	78.1	18.6	0.7	2.6	72.8	18.3	1.1	7.8
1984-85 ...	78.3	18.4	0.7	2.6	72.3	18.8	1.0	7.8
1985-86 ...	78.5	18.2	0.7	2.5	72.0	19.2	1.1	7.6

SOURCE: U.S. Department of Education, Center for Education Statistics, "Degrees and Other Formal Awards Conferred" surveys.

Table 1.7.--Expenditures of public institutions of higher education, by type of institution: 1976-77 to 1985-86
(Percentage distribution)

Type of institution and year	Educational and general expenditures								
	Total	Instruction	Administration *	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Universities									
1976-77 ...	100.0	39.0	16.7	18.4	3.5	8.1	9.1	4.0	1.2
1977-78 ...	100.0	39.2	17.0	18.6	3.4	7.9	9.2	3.8	1.0
1978-79 ...	100.0	39.1	16.8	18.9	3.2	8.2	9.3	3.5	1.0
1979-80 ...	100.0	38.8	16.3	19.5	3.7	8.1	9.2	3.5	1.0
1980-81 ...	100.0	38.5	16.6	19.7	3.2	8.3	9.1	3.5	1.0
1981-82 ...	100.0	38.8	16.9	19.3	3.2	8.1	9.4	3.5	0.9
1982-83 ...	100.0	38.8	16.9	19.2	3.3	8.1	9.4	3.5	0.9
1983-84 ...	100.0	38.6	16.9	19.1	3.3	8.0	9.4	3.6	1.0
1984-85 ...	100.0	38.3	17.4	19.4	3.2	8.0	9.2	3.6	0.9
1985-86 ...	100.0	37.7	17.6	19.7	3.2	8.0	8.8	3.8	1.2
Other 4-year									
1976-77 ...	100.0	46.4	22.4	7.0	3.9	2.9	11.5	3.9	2.0
1977-78 ...	100.0	46.2	22.7	7.1	3.9	2.9	11.7	3.5	2.1
1978-79 ...	100.0	45.6	23.3	7.5	3.8	2.9	11.6	3.2	2.0
1979-80 ...	100.0	44.9	23.5	8.0	3.8	3.1	11.7	3.3	1.8
1980-81 ...	100.0	44.8	23.3	7.9	3.9	3.1	11.9	3.1	1.8
1981-82 ...	100.0	45.7	23.4	7.6	3.7	3.1	12.1	2.8	1.6
1982-83 ...	100.0	45.7	23.3	7.5	3.7	3.1	12.1	2.9	1.7
1983-84 ...	100.0	45.1	24.3	7.5	3.8	3.1	11.3	2.9	1.7
1984-85 ...	100.0	44.8	24.6	7.7	3.7	3.3	11.7	2.7	1.6
1985-86 ...	100.0	45.0	24.6	8.2	3.6	3.3	10.7	2.9	1.8
2-year									
1976-77 ...	100.0	51.1	26.5	0.3	3.5	2.0	11.2	2.9	2.4
1977-78 ...	100.0	50.6	27.6	0.2	3.5	2.1	11.3	2.2	2.4
1978-79 ...	100.0	50.2	27.9	0.4	3.4	1.9	11.3	2.2	2.6
1979-80 ...	100.0	50.3	27.6	0.4	3.2	2.2	11.7	2.3	2.2
1980-81 ...	100.0	50.6	27.8	0.4	3.1	2.2	12.0	2.3	1.7
1981-82 ...	100.0	50.9	27.8	0.2	3.4	1.9	12.3	2.1	1.5
1982-83 ...	100.0	50.9	28.5	0.2	3.0	1.5	12.3	2.1	1.6
1983-84 ...	100.0	50.8	28.6	0.2	3.0	1.7	12.2	2.0	1.5
1984-85 ...	100.0	50.3	29.0	0.2	2.9	2.0	12.1	2.2	1.4
1985-86 ...	100.0	49.9	29.7	0.1	2.9	2.0	11.9	2.2	1.4

* Includes institutional support, student services, and academic support less libraries.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Financial Statistics of Institutions of Higher Education" surveys.

Table 1.8.--Expenditures of private nonprofit institutions of higher education, by type of institution: 1976-77 to 1985-86
[Percentage distribution]

Type of institution and year	Educational and general expenditures								
	Total	Instruction	Administration*	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Universities									
1976-77 ...	100.0	38.0	16.6	21.1	4.2	2.2	8.8	8.1	1.1
1977-78 ...	100.0	37.9	16.7	20.8	4.2	2.1	8.7	8.4	1.1
1978-79 ...	100.0	37.4	17.5	20.7	3.9	2.1	9.0	8.1	1.3
1979-80 ...	100.0	37.9	17.5	20.5	3.7	2.3	8.9	7.9	1.3
1980-81 ...	100.0	38.1	17.4	19.8	3.7	2.1	9.1	8.2	1.5
1981-82 ...	100.0	39.1	17.5	18.9	3.7	2.0	9.5	8.2	1.2
1982-83 ...	100.0	39.4	18.5	17.9	3.6	2.1	9.2	8.2	1.2
1983-84 ...	100.0	38.6	18.9	17.7	3.8	2.0	9.1	8.8	1.2
1984-85 ...	100.0	38.0	18.7	18.1	3.5	2.4	8.9	8.9	1.4
1985-86 ...	100.0	37.8	18.8	18.5	3.5	2.4	8.6	9.1	1.3
Other 4-year									
1976-77 ...	100.0	37.3	27.8	5.0	3.9	2.4	11.2	10.0	2.3
1977-78 ...	100.0	37.5	28.2	4.8	3.9	2.2	11.3	9.8	2.3
1978-79 ...	100.0	37.2	28.5	5.2	3.8	2.2	11.2	9.6	2.3
1979-80 ...	100.0	36.7	28.5	5.3	3.7	2.2	11.4	9.8	2.4
1980-81 ...	100.0	36.1	29.1	5.1	3.6	2.3	11.5	10.1	2.3
1981-82 ...	100.0	36.1	29.4	4.6	3.6	2.5	11.4	10.1	2.2
1982-83 ...	100.0	36.2	29.9	4.5	3.6	2.4	11.1	10.0	2.2
1983-84 ...	100.0	36.0	29.9	4.4	3.6	2.4	10.9	10.6	2.2
1984-85 ...	100.0	35.6	30.0	4.6	3.5	2.4	10.6	11.1	2.3
1985-86 ...	100.0	35.1	30.0	4.8	3.5	2.6	10.2	11.5	2.3
2-year									
1976-77 ...	100.0	35.3	35.0	0.4	3.4	1.2	13.9	7.7	3.1
1977-78 ...	100.0	35.1	36.4	0.1	3.4	1.1	13.6	7.5	2.7
1978-79 ...	100.0	35.2	36.6	0.2	3.2	1.0	12.9	7.8	3.0
1979-80 ...	100.0	34.8	36.9	0.1	3.1	0.8	12.8	8.4	3.0
1980-81 ...	100.0	34.3	36.8	0.1	2.9	0.6	13.2	8.5	3.6
1981-82 ...	100.0	34.9	38.2	0.1	2.8	0.6	12.8	7.7	3.0
1982-83 ...	100.0	34.6	37.1	0.1	2.7	0.5	13.0	8.5	3.5
1983-84 ...	100.0	33.6	38.0	0.0	2.7	0.5	13.4	9.1	2.7
1984-85 ...	100.0	33.6	38.5	0.1	2.7	0.5	13.1	9.2	2.3
1985-86 ...	100.0	34.0	38.8	0.0	2.7	0.4	12.9	9.2	2.0

* Includes institutional support, student services, and academic support less libraries.

NOTE.--Excludes institutions without both enrollment and finance data. Excludes proprietary institutions.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Financial Statistics of Institutions of Higher Education" surveys.

Table 1.9.--Expenditures per full-time-equivalent student in public institutions of higher education, by type of institution: 1976-77 to 1985-86
[In constant 1985-86 dollars]

Type of institution and year	Educational and general expenditures								
	Total	Instruction	Administration *	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Universities									
1976-77 ...	$9,944	$3,877	$1,658	$1,825	$350	$807	$906	$399	$122
1977-78 ...	10,043	3,940	1,703	1,864	337	789	923	383	104
1978-79 ...	10,210	3,988	1,717	1,933	329	833	947	359	104
1979-80 ...	9,800	3,798	1,599	1,910	362	791	898	343	98
1980-81 ...	9,574	3,688	1,593	1,882	310	795	872	338	96
1981-82 ...	9,505	3,690	1,602	1,830	308	771	890	331	82
1982-83 ...	9,684	3,760	1,633	1,858	318	783	911	339	83
1983-84 ...	10,025	3,866	1,691	1,917	336	806	947	363	100
1984-85 ...	10,682	4,089	1,859	2,075	343	856	984	382	95
1985-86 ...	11,320	4,266	1,991	2,227	366	910	1,001	426	133
Other 4-year									
1976-77 ...	7,251	3,363	1,626	507	284	209	837	283	143
1977-78 ...	7,321	3,384	1,660	518	283	210	856	255	155
1978-79 ...	7,412	3,382	1,730	557	280	214	861	239	148
1979-80 ...	7,270	3,262	1,709	580	277	222	851	237	131
1980-81 ...	7,142	3,202	1,667	567	278	222	850	224	132
1981-82 ...	7,157	3,267	1,675	543	268	220	869	201	113
1982-83 ...	7,131	3,256	1,663	536	261	219	866	210	119
1983-84 ...	7,283	3,287	1,786	549	274	226	825	209	127
1984-85 ...	7,824	3,504	1,925	606	286	257	912	209	124
1985-86 ...	8,243	3,713	2,031	672	296	269	879	237	147
2-year									
1976-77 ...	3,908	1,996	1,036	13	137	78	439	114	95
1977-78 ...	3,933	1,990	1,085	7	139	83	446	87	95
1978-79 ...	3,990	2,002	1,115	15	135	77	453	89	105
1979-80 ...	3,806	1,914	1,052	16	122	85	446	89	82
1980-81 ...	3,619	1,832	1,006	14	114	78	433	82	61
1981-82 ...	3,641	1,853	1,013	7	123	69	447	75	53
1982-83 ...	3,517	1,789	1,002	8	105	52	431	74	55
1983-84 ...	3,605	1,832	1,031	7	108	61	440	73	53
1984-85 ...	4,021	2,021	1,165	7	117	82	486	87	55
1985-86 ...	4,223	2,107	1,253	4	122	83	503	93	57

* Includes institutional support, student services, and academic support less libraries.

NOTE.--Expenditures adjusted by the Consumer Price Index.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Financial Statistics of Institutions of Higher Education" surveys; and U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index.

Table 1.10.--Index of expenditures per full-time-equivalent student [1] in public institutions of higher education, by type of institution: 1976-77 to 1985-86
[1976-77 = 100]

Type of institution and year	Educational and general expenditures								
	Total	Instruction	Administration [2]	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Universities									
1976-77 ...	100	100	100	100	100	100	100	100	100
1977-78 ...	101	102	103	102	96	98	102	96	86
1978-79 ...	103	103	104	106	94	103	105	90	85
1979-80 ...	99	98	96	105	103	98	99	86	80
1980-81 ...	96	95	96	103	89	99	96	85	79
1981-82 ...	96	95	97	100	88	96	98	83	67
1982-83 ...	97	97	98	102	91	97	101	85	68
1983-84 ...	101	100	102	105	96	100	104	91	82
1984-85 ...	107	105	112	114	98	106	109	96	78
1985-86 ...	114	110	120	122	104	113	110	107	109
Other 4-year									
1976-77 ...	100	100	100	100	100	100	100	100	100
1977-78 ...	101	101	102	102	100	100	102	90	108
1978-79 ...	102	101	106	110	99	102	103	85	103
1979-80 ...	100	97	105	114	98	106	102	84	92
1980-81 ...	98	95	103	112	98	106	102	79	92
1981-82 ...	99	97	103	107	94	105	104	71	79
1982-83 ...	98	97	102	106	92	105	104	74	83
1983-84 ...	100	98	110	108	97	108	99	74	89
1984-85 ...	108	104	118	120	101	123	109	74	87
1985-86 ...	114	110	125	132	104	129	105	84	103
2-year									
1976-77 ...	100	100	100	100	100	100	100	100	100
1977-78 ...	101	100	105	55	101	106	102	76	100
1978-79 ...	102	100	108	118	98	99	103	78	110
1979-80 ...	97	96	102	126	89	108	102	78	86
1980-81 ...	93	92	97	108	83	100	99	71	64
1981-82 ...	93	93	98	58	90	88	102	66	56
1982-83 ...	90	90	97	61	77	67	98	65	58
1983-84 ...	92	92	100	59	78	78	100	64	55
1984-85 ...	103	101	113	52	85	104	111	76	58
1985-86 ...	108	106	121	33	89	107	115	81	60

[1] Data in constant 1985-86 dollars.
[2] Includes institutional support, student services, and academic support less libraries.

NOTE.--Expenditures adjusted by the Consumer Price Index.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Financial Statistics of Institutions of Higher Education" surveys; and U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index.

Table 1.11.--Expenditures per full-time-equivalent student in private nonprofit institutions of higher education, by type of institution: 1976-77 to 1985-86
[In constant 1985-86 dollars]

Type of institution and year	Educational and general expenditures								
	Total	Instruction	Administration *	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Universities									
1976-77 ...	$15,394	$5,853	$2,552	$3,242	$640	$344	$1,349	$1,249	$165
1977-78 ...	15,228	5,779	2,547	3,164	640	322	1,332	1,273	173
1978-79 ...	15,128	5,653	2,644	3,134	591	317	1,362	1,227	201
1979-80 ...	14,888	5,637	2,612	3,056	549	344	1,321	1,178	191
1980-81 ...	14,954	5,701	2,609	2,963	551	309	1,362	1,230	229
1981-82 ...	15,001	5,859	2,621	2,840	556	303	1,420	1,227	176
1982-83 ...	15,441	6,080	2,861	2,759	557	319	1,421	1,263	181
1983-84 ...	16,751	6,460	3,169	2,970	636	331	1,516	1,470	198
1984-85 ...	17,740	6,743	3,317	3,218	623	430	1,582	1,583	244
1985-86 ...	18,779	7,093	3,539	3,471	655	447	1,615	1,713	247
Other 4-year									
1976-77 ...	7,589	2,834	2,110	383	297	183	849	756	177
1977-78 ...	7,563	2,836	2,131	364	298	165	856	738	174
1978-79 ...	7,510	2,792	2,137	393	288	164	844	718	174
1979-80 ...	7,410	2,717	2,115	393	273	161	848	729	176
1980-81 ...	7,388	2,664	2,147	374	266	171	852	744	170
1981-82 ...	7,535	2,720	2,217	349	268	190	862	760	169
1982-83 ...	7,855	2,846	2,347	350	286	189	875	788	174
1983-84 ...	8,206	2,951	2,451	364	294	197	896	870	184
1984-85 ...	8,653	3,081	2,592	394	305	211	915	960	196
1985-86 ...	9,130	3,201	2,740	443	317	234	935	1,053	207
2-year									
1976-77 ...	4,790	1,693	1,679	21	162	59	664	366	147
1977-78 ...	4,528	1,588	1,649	5	156	50	617	342	122
1978-79 ...	4,634	1,633	1,696	10	149	48	598	362	139
1979-80 ...	4,454	1,551	1,645	6	140	35	570	374	133
1980-81 ...	4,415	1,515	1,626	3	126	28	582	376	159
1981-82 ...	4,307	1,502	1,646	3	121	24	550	332	129
1982-83 ...	4,561	1,579	1,692	5	124	23	594	388	158
1983-84 ...	4,600	1,547	1,747	1	124	23	615	420	124
1984-85 ...	5,126	1,722	1,973	4	139	24	672	474	119
1985-86 ...	5,272	1,792	2,046	1	140	22	679	487	106

* Includes institutional support, student services, and academic support less libraries.

NOTE.--Excludes institutions without both enrollment and finance data. Excludes proprietary institutions. Constant dollars adjusted by the Consumer Price Index.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Financial Statistics of Institutions of Higher Education" surveys; and U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index.

Table 1.12.--Index of expenditures per full-time-equivalent student[1] in private nonprofit institutions of higher education, by type of institution: 1976-77 to 1985-86
[1976-77 = 100]

Type of institution and year	Educational and general expenditures								
	Total	Instruction	Administration[2]	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Universities									
1976-77 ...	100	100	100	100	100	100	100	100	100
1977-78 ...	99	99	100	98	100	93	99	102	104
1978-79 ...	98	97	104	97	92	92	101	98	121
1979-80 ...	97	96	102	94	86	100	98	94	115
1980-81 ...	97	97	102	91	86	90	101	98	139
1981-82 ...	97	100	103	88	87	88	105	98	107
1982-83 ...	100	104	112	85	87	93	105	101	110
1983-84 ...	109	110	124	92	99	96	112	118	120
1984-85 ...	115	115	130	99	97	125	117	127	147
1985-86 ...	122	121	139	107	102	130	120	137	149
Other 4-year									
1976-77 ...	100	100	100	100	100	100	100	100	100
1977-78 ...	100	100	101	95	100	90	101	98	98
1978-79 ...	99	99	101	103	97	90	99	95	98
1979-80 ...	98	96	100	103	92	88	100	96	99
1980-81 ...	97	94	102	97	90	94	100	98	96
1981-82 ...	99	96	105	91	90	104	101	101	96
1982-83 ...	103	100	111	91	96	104	103	104	98
1983-84 ...	108	104	116	95	99	108	106	115	104
1984-85 ...	114	109	123	103	103	116	108	127	110
1985-86 ...	120	113	130	115	107	128	110	139	117
2-year[3]									
1976-77 ...	100	100	100	100	100	100	100	100	100
1977-78 ...	95	94	98	23	96	84	93	93	83
1978-79 ...	97	97	101	46	92	81	90	99	95
1979-80 ...	93	92	98	31	87	59	86	102	90
1980-81 ...	92	90	97	13	78	47	88	103	108
1981-82 ...	90	89	98	13	75	40	83	91	88
1982-83 ...	95	93	101	23	76	39	89	106	107
1983-84 ...	96	91	104	5	77	40	93	115	84
1984-85 ...	107	102	118	19	86	40	101	129	81
1985-86 ...	110	106	122	4	87	37	102	133	72

1 Data in constant 1985-86 dollars.
2 Includes institutional support, student services, and academic support less libraries.
3 Because of the small base, data for research expenditures show wide fluctuations. Research expenditures are not a significant component of private 2-year college expenditures.

NOTE.--Excludes institutions without both enrollment and finance data. Excludes proprietary institutions. Constant dollars adjusted by the Consumer Price Index.

SOURCE: U.S. Department of Education, Center for Education Statistics, "Financial Statistics of Institutions of Higher Education" surveys; and U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index.

Part 2

Higher Education Administrative Costs and Staffing

Executive Summary

The objective of this paper is to evaluate the role of administrative expenditures in the escalation of the costs of higher education.

To assess long-term changes it is necessary to combine the "Institutional Support" and "Student Services" expenditure categories since the Higher Education General Information Survey did not separate these components prior to the mid-1970s. Together these two components rose from 12.5 percent of "Education and General" expenditures in academic year 1949-50 to 19.2 percent in 1984-85.

Since the post-World War II period, higher education has undergone tremendous changes. One of the most important ones is the greater emphasis on research and public service roles relative to the instructional function. In order to separate the effect of this change, administrative expenditures are compared to expenditures for instruction after adjusting the administrative expenditures for the declining percentage that instruction represents of the total for instruction, research and public service expenditures combined.

From academic year 1949-50, the adjusted administrative expenditures have risen from 17.6 cents per dollar spent on instruction to 29.7 cents in 1984-85. For this period, administrative expenditures include the categories of "Institutional Support" as well as "Student Services." Two-thirds of the increase occurred prior to 1973; the remaining one-third has gradually crept up since that time. From 1974-75 it is possible to view administrative costs on the basis of the "Institutional Support" category separately. Adjusted Institutional Support expenditures have risen from 17.7 cents per dollar spent on Instruction in academic year 1974-75, to 20.0 cents in 1984-85, with a gradual rise over the decade.

Staffing patterns represent another perspective from which to view administrative loads. The Higher Education General Information Surveys for 1966-76 show increasing shares of faculty and non-teaching professionals of total staffing, with the number of faculty increasing less rapidly than their non-teaching professional colleagues. At the same time, non-professional staff declined as a share of total higher education personnel.

From 1975 to 1983, Equal Employment Opportunity Commission data show a reversal in the share of faculty, with a slight decline of 1.4 percent. During the same period non-teaching professionals increased by 3.8 percent. The decline of non-professionals continued. By 1983, non-professionals constituted only 46 percent of total staff as compared to 53.5 percent in 1966.

Two case studies are described which were undertaken to gain more insight into staffing in those institutions that were examined (the State University System of Florida, comprised of nine senior institutions, and the University of Georgia).

For the Florida institutions, all professional positions that were filled in 1980 and in 1985 were divided into 28 functional categories (e.g., General

Administration, Financial Administration, Public Service, etc.). There was a marked increase of "General Administration" -- with titles such as presidents, and vice-presidents -- relative to the average increase of all professionals. Various other categories of specialized administrators (e.g., university relations, and human resource management) also expanded more rapidly than professionals as a whole. The group with the primary academic responsibility for teaching and research expanded less rapidly than the system-wide average for all professionals.

Teaching loads were compared for all professionals, and declined from an average of 10.2 semester hours over the academic year in 1980 to 8.4 semester hours in 1985. When only those with the primary teaching and research responsiblity are included, the decline is from 14.2 to 12.3 semester hours for the academic year.

Staffing ratios were developed for the University of Georgia, a comprehensive land-grant university. For the entire University there are 30 executive/administrative, managerial (EAM) staff per 100 faculty. The ratio is much lower in the College of Arts and Sciences (5.5/100). The Colleges of Agriculture, Forestry and Veterinary Medicine (with their off-site experiment and research stations and cooperative extension services), the various separate research centers, and the public service units use approximately one EAM per two faculty.

In addition to the EAM group, the University employs 72 non-faculty professionals per 100 faculty. The Cooperative Extension Service, with its many county agents, contributes heavily to this group. Without the Extension Service, the ratio is 51 non-teaching professionals to 100 faculty. This group has grown by 40 percent in the past decade, while the number of faculty has not changed.

The University's measure of academic staff time devoted to administration has almost doubled from 1978-79, while for the same period the time devoted to instruction has declined. Stated another way, teaching time was reduced 9.9 percent; one-fourth of this decline was redirected to more public service/research and three-fourths went toward administration.

All State higher education coordinating agencies were asked to supply available data showing longitudinal expenditure and staffing patterns as they relate to administrative and support functions in recent years. The predominant pattern among the States that supplied longitudinal data is an increase in non-teaching professionals relative to faculty. Often this increase is particularly evident for the non-teaching professionals who are not classified as administrators. There is also recurring evidence of a declining proportion of non-professionals relative to total staff.

Suggested areas for further analysis include evaluation of whether research and public service add disproportionate burdens on administrative and support functions, and if so, whether organizational and funding changes are in order to reduce such burdens. Also, institutions may wish to examine whether the relative reduction of non-professional jobs and increase of non-teaching professionals are related, and if so, are they justified in terms of the

assigned duties. Another possibility that might be examined is whether the trend toward specialization and splintering of jobs into new positions might be reversed to effect a reduction in the number of non-teaching professionals.

In summary, the escalation of non-teaching professionals in higher education suggests that institutions need to evaluate their staffing patterns to determine whether more efficient utilization of personnel is possible.

Higher Education Administrative Costs and Staffing

by Eva C. Galambos, Ph.D.

SECTION I: Introduction

There has been a notable increase in college costs during the past several years. O'Keefe notes that from 1981 to 1985 the average price of a college education increased by 35 percent, while the Consumer Price Index for the same period rose 17 percent.[1] Current fund expenditures per full-time- equivalent student remained stable for the decade from 1971 to 1981 when deflated by the Higher Education Price Index. However, since then they have risen more sharply, by 7 percent, from $9,625 in FY 1983 to $10,301 in FY 1985 (in constant 1985 dollars).[2] According to the College Board, the tuition and fees for 4-year resident students of public institutions rose 130 percent from 1976 to 1986, while for the private sector the increase was 133 percent.[3]

Why are college expenditures rising? According to O'Keefe, the most popular explanation is that colleges are bringing up faculty salaries to make up for losses they suffered during the late 1970s. Other possible explanations offered are rising maintenance costs, and the purchase of computers and other new equipment.

Administrative costs represent another possible explanation. Bowen found that the more affluent institutions (i.e., those that receive more revenues) spend smaller proportions of their budgets for instructional functions, and more for nonacademic staff. He pointed to the declining proportion that direct expenditures for teaching represent of total expenditures and stated,

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Dr. Galambos is an education consultant based in Atlanta, Georgia. This article was prepared under contract to the U.S. Department of Education. The opinions and recommendations it contains are those of the author, and not necessarily those of the U.S. Department of Education.

"...a strong case can be made that economies should be sought in the nonacademic part of institutional budgets rather than in the academic part. The focus should be on the ratio of nonacademic staff to students rather than on the ratio of faculty to students."[4]

This paper reviews available national data to assess whether administrative and support costs have contributed to the escalation of higher education costs, and it presents two case studies to describe the functions of the non-teaching professional staff in higher education.

Section II reviews national data on the expenditures and staffing patterns of institutions of higher education. Section III describes changes in the staffing patterns of one statewide system of higher education at the senior level, specifically, the University System of Florida. Section IV reviews the distribution of professional staff and their functions at one major institution -- The University of Georgia.

The State University System of Florida (nine senior institutions) and the University of Georgia were chosen because both have comprehensive management information systems that facilitate analysis and because they are proximate to the author's base. No claim is made that they are representative of the various types of higher education institutions.

Information provided by State higher education agencies about staffing patterns in their States is analyzed in Section V, and a discussion of the findings follows in Section VI.

SECTION II: National Trends on Administrative and Support Functions

A. Expenditure Patterns

The U.S. Department of Education conducts surveys of the expenditures of institutions of higher education. The Higher Education General Information Surveys (HEGIS) of Financial Statistics have experienced several changes in format, necessitating the combination of some data elements to obtain longitudinal comparability. Bowen's methods in The Costs of Higher Education, as well as the instructions that accompanied the surveys as data elements were revised, were used to "splice" the surveys.[5]

The most frequently used measure of higher education costs is the one labeled "Education and General" because this item excludes costs related to auxiliary enterprises, hospitals and independent operations. Direct costs for "Instruction" as a percentage of Education and General Expenditures have declined from approximately 53 percent at the beginning of the post-World War II period of the 1949-50 academic year to 49 percent in 1984-85, as measured by HEGIS (See Table 2.1).

One explanation for the decline of "Instruction" costs as a percentage of total Education and General costs is the changing role of higher education, which increasingly encompasses research and public service activities. Yet this explanation is not entirely satisfactory, because when only "Instruction," "Research" and "Public "Service" expenditures are considered together, the percentage that "Instruction" constitutes of this total has changed at a more moderate rate -- from 74 percent in the 1949-50 academic year to approximately 76 percent in the 1980s. (See Line 5, Appendix A.) The steeper decline of expenditures for "Instruction" as a percentage of "Education and General" expenditures is due in part to an increase in some other expenditure categories. One of these is administrative expenditures.

Administrative expenditures as they relate to "Instruction" are presented in Table 2.2, and their derivation is shown in Appendix A. Through academic year 1973-74, HEGIS included the category "General Administration and General Expense" which was broken down and refined in the 1974-75 survey into two categories -- "Institutional Support" and "Student Services." "Institutional Support" is defined in the survey instructions as "...expenditures for the day to-day operational support of the institution, excluding expenditures for physical plant operation. Include general administrative services, executive direction and planning, legal and fiscal operations, and community relations." Thus, public relations, fund raising and administrative computing are included under this category. The salaries of deans, however, are excluded.

"Student Services" is defined as "...expenditures for admissions, registrar activities, and activities whose primary purpose is to contribute to students' emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instruction program. Examples are career guidance, counseling, financial aid administration, student health services (except when operated as a self-supporting auxiliary enterprise)."[6]

Table 2.1

Selected Components of Education
and General Expenditures for Higher Education
1929-1985

(dollar amounts in hundreds of thousands)

	Education and General Expenses (a)	Instruction Expenses as Percentage of Education and General (b)	Physical Plant as Percentage of Education and General	Administrative as Percentage of Education and General (c)
1929-30	$ 378	58.7%	16.1%	11.4%
1939-40	522	58.8	13.4	12.1
1949-50	1,706	52.8	13.2	12.5
1959-60	4,513	46.2	10.4	12.9
1969-70	15,789	52.6	9.8	16.6
1971-72	19,201	53.6	10.0	17.4
1973-74	23,257	53.4	10.7	18.1
1974-75	26,098	50.0	10.7	17.2
1975-76	28,963	49.5	10.6	18.1
1976-77	31,382	49.6	11.0	17.8
1977-78	34,417	49.7	11.0	17.9
1978-79	37,939	49.3	11.0	18.0
1979-80	42,342	49.0	11.1	18.0
1980-81	47,569	48.9	11.2	18.3
1981-82	52,164	49.3	11.5	18.5
1982-83	56,007	49.5	11.4	18.6
1983-84	60,440	49.2	11.1	19.1
1984-85	66,391	48.9	11.1	19.2

Source: U.S. Department of Education, National Center for Education Statistics, "Financial Statistics of Institutions of Higher Education" survey as shown in Digest of Educational Statistics, 1985-86, and Office of Educational Research and Improvement Bulletin, Feb. 1987.

Notes: See Appendix A for derivation of this Table.

a. "Education and General" for 1929-1974 corresponds to "Education and General Expenditures and Mandatory Transfers" less "Scholarships and Fellowships" for succeeding years.

b. This equals line 3 in Appendix A as a percentage of Column 1, Table 1.

c. This equals line 8 in Appendix A as a percentage of Column 1, Table 1.

Since higher education includes three major functions (instruction, research and public service), only a portion of administrative costs pertains to the instructional function. The method of allocating overhead (or administrative) costs to instruction follows Bowen's methods, wherein he allocates such expenditures in the proportions that the instructional expenditures constitute of the total for the three combined functions.[7] This adjustment has the effect of separating the administrative burden of the expanding research and public service roles before measuring the weight of the remaining administrative costs relative to instruction.

As shown in Table 2.2, for every dollar spent on instruction in academic year 1949-50, 17.6 cents were spent for administrative functions. By 1984-85, this had risen to 29.7 cents per dollar.

Administrative expenditures are probably understated for two reasons. Neither "Institutional Support" nor "Student Services" expenditures include academic administration (e.g., academic deans' salaries), all of which are included in "Academic Support," combined in this analysis under "Instructional" expenditures. (See Appendix A.)

Another probable understatement of the portion of administrative costs attributable to "Instruction" is due to allocating "Student Service" expenditures on the same basis as "Institutional Support." It is likely that a higher proportion of "Student Services" (e.g., Registrar's office) is more directly related to "Instruction" than the proportion that "Instruction" represents of the total combined expenditures for instruction, research and public service. Yet no different allocation can be applied to "Student Service" than is applied to "Institutional Support" because for the earlier survey years these two categories were not separated. A countervailing influence, however, is that in the earlier period faculty customarily bore primary responsibility for advising students, so that the cost for this was included under "Instruction." Today this function is more often performed by counselors and advisors who are included under "Student Services."

If "Institutional Support" alone is considered for the years when this category was separated from "Student Services," the increase in administrative expenditures has been from 17.7 cents per dollar spent on instruction in academic year 1974-75 to 20.0 cents in 1984-85.

Periods of Increase: Administrative expenditures relative to "Instruction" expenditures experienced two periods of rise: the steepest from 1960 to 1974, tracking the phenomenal growth rate of student enrollments;[8] and a more moderate increase in the 1980s, when student enrollments have been fairly stable.

The rise from 17.7 percent to 20.0 percent of "Institutional Support" expenditures relative to "Instruction" expenditures has been gradual over the 10-year period for which data exist, beginning with 1974-75.

Administrative costs are shown as a proportion of "Education and General" expenditures in Table 2.1. They have risen from 12.5 percent of total expenditures in academic year 1949-50 to 19.2 percent for 1984-85. Again, the

Table 2.2

Administrative Expenditures for Instruction

1929-30 to 1984-85

(dollar amounts in hundreds of thousands)

	Instructional Expenditures	Adjusted Administrative Expenditures* as Percentage of Instructional	Adjusted Institutional Support Expenditures* as Percentage of Instructional
1929-30	$222	16.2%	
1939-40	307	16.9	
1949-50	900	17.6	
1959-60	2,087	17.6	
1969-70	8,301	21.8	
1971-72	10,283	25.4	
1973-74	12,412	26.9	
1974-75	13,052	26.0	17.7%
1975-76	14,344	27.8	19.2
1976-77	15,576	27.2	18.3
1977-78	17,117	27.5	18.4
1978-79	18,707	27.6	18.4
1979-80	20,750	27.5	18.3
1980-81	23,247	28.0	18.6
1981-82	25,697	28.5	19.1
1982-83	27,720	28.7	19.2
1983-84	29,736	29.7	19.9
1984-85	32,489	29.7	20.0

Source: U.S. Department of Education, National Center for Education Statistics, "Financial Statistics of Institutions of Higher Education" survey as shown in Digest of Educational Statistics, 1985-86, and Office of Educational Research and Improvement Bulletin, Feb. 1987.

Notes: * Adjusted Administrative Expenditures are calculated on line 9 of Appendix A., and represent a reduction of Administrative expenditures to reflect the percentage that "Instruction" represents of the total expenditures for "Instruction," "Research," and "Public Service."

steepest rise in this proportion occurred at the end of the 1960s and in the early 1970s with a gradual upward creep since that time.

Other Expenditure Categories: What has happened to other components which have been mentioned as culprits for the overall escalation of costs? Physical plant expenditures in operation and maintenance, which are often blamed, have remained remarkably stable after declining from 1949-50, as physical plant overhead was spread over the expanding higher education enterprise. Remarkably, no change in this percentage is evident for the period when energy prices exploded. Deferred maintenance may be understating true physical plant costs. However, administrators have pointed to this issue in other periods, and most observers would agree that the physical appearance of campuses is superior today to the conditions experienced by prior generations of students.

If recent cost escalations reflect efforts to bring up faculty salaries, one would expect to see the proportion that "Instruction" represents in the "Education and General" expense category to rise, which has not occurred. In this analysis, "Instruction" includes "Academic Support," which covers equipment such as computers for academic use. If computers contributed greatly to the escalation of higher education expenditures, the proportion that "Instruction" represents of the "Education and General" expense category would be rising, and not declining.

B. Staffing Patterns

The magnitude of administrative and institutional support functions may be viewed from the standpoint of staffing patterns as well as from the perspective of expenditures for such staffing. Available national data suggest that the share of professional non-teaching personnel has grown at a faster rate than the faculty component of total higher education staffing.

The higher education staffing patterns from 1966 to 1976 are shown in Part I of Table 2.3. This Center for Education Statistics (CES) series represents full-time equivalents. It shows a small increase in the share that faculty comprise among total staff, a somewhat larger increase in the share of non-teaching professionals, and a significant decline in the share of non-professionals. The non-teaching professionals include the executive-administrative and managerial personnel, as well as other non-teaching professionals. Although reporting uniformity was a problem with these surveys, only individuals whose primary function was administration were to be included under "exceutive-administrative-managerial." Thus many associate and assistant deans and chairpersons are counted as faculty. The non-professional category includes technical, office, crafts and trades and service occupations.

CES ceased collection of higher education staffing with its 1976 survey. However, the Equal Employment Opportunity Commission (EEOC) began to collect higher education staffing data in 1975. (As of this writing, the 1983 survey data are the latest available EEOC data.)

Table 2.3

Distribution of Higher Education Staffing
1966-1983

Part I: National Center for Education Statistics
Full-time Equivalents, All Institutions

	Faculty	Non-Teaching Professionals	Non-Professionals	Total
1966	29.0%	17.5%	53.5%	100%
1970	32.0	21.8	46.2	100%
1976	32.4	22.2	45.4	100%

Part II: Equal Employment Opportunity Commission
Full-time Staff, All Institutions

	Faculty	Non-Teaching Professionals	Non-Professionals	Total
1975	32.2%	19.4%	48.4%	100%
1983	30.8	23.2	46.0	100%

Part III: Equal Employment Opportunity Commission
1983 Full-time Staff, Public & Private

	Faculty	Administrative	Other Professionals	Non Professionals
Public	31.7%	6.5%	15.7%	46.2%
Private	29.0	9.3	15.8	45.8

Source: National Center for Education Statistics, Numbers of Employees in Institutions of Higher Education, Fall, 1972, p. 7, and U.S. Department of Education, Digest of Educational Statistics, 1977-78, p. 95., and Equal Employment Opportunities Commission, Higher Education Staff Information Reports, 1975-1983.

As shown in Part II of Table 2.3, from 1975 to 1983 the share of total staffing that faculty represents has fallen, while the share of non-teaching professionals has risen. The share of non-professionals has continued to decline.[9]

Why has the proportion of non-professionals fallen in higher education in the last 17 years? Is there a connection between the rise in the proportion of non-teaching professionals and the fall of non-professionals? Are non-professional jobs being reduced by automation or other efficiency measures, while new functions (and roles that faculty no longer fulfill in some institutions) require the creation of new non-teaching professional positions such as student counselors? Or are non-professional positions being switched to professional ones as institutions upgrade positions? What was once a secretarial job, for example, may be upgraded into a coordinator or assistant-to-the-provost position. Higher educational credentials and new job duties may be written into job specifications, which may cause the position to shift from the non-professional category to the professional one. Detailed institutional inquiries are needed to determine whether "upgrading" or new administrative and support functions that did not exist previously explain the escalation of non-teaching professionals and the reduction of the non-professional share of total staff.

Differences in the distribution of staff between public and private institutions in 1983 are illustrated in Part III of Table 2.3. The administrative category comprises a larger share in the private sector, and this difference is offset in the public sector by its larger percentage of faculty relative to total staff. In a study of 268 representative colleges and universities in academic year 1976-77, Bowen also noted higher proportions of administrators in private institutions.[10]

Tolbert suggests the number of administrators is somewhat dependent on how institutionalized various revenue sources become. In her study of doctoral-granting and comprehensive institutions, only 48 percent of all public universities had a "chief development officer," as opposed to 83 percent of the private ones. Yet 45 percent of the public institutions had institutional research officers, as compared to only 25 percent of the privates. However, the more dependent an institution becomes on the unexpected source of revenue (i.e., private gifts for public and public grants for private colleges), the more congruent the staffing patterns become.[11]

SECTION III: An Institutional View — The State University System of Florida

A. Professionals and Their Functions

The utilization of professional personnel in higher education becomes clearer when professional job titles can be analyzed in greater detail than is available in highly aggregated national surveys. Data files from the State University System of Florida and the University of Georgia were used for this purpose.

The State University System of Florida provided detailed data from its Authorized Position File on the job titles of all professional personnel for fall 1985 and for fall 1980. The data file pertains to all faculty, administrative, and other professional staff of the System across the nine senior public universities of the State. The Authorized Position File includes positions funded by each of the various budgets used in the financial accounting system for the State System in Florida.

For the purpose of this study, only those positions that were filled by full-time personnel on at least 9-month contracts were included in each of the two study years.

The complete list of 404 job titles was classified for this study into 28 categories which are listed in Table 2.4. (The detailed list of job titles in each category is found in Appendix B.) These categories cover the total range of higher education activities, from teaching to athletics, and from physical plant management to alumni relations. Individuals who hold faculty status may be found in category 27 (Professors, Associate Professors, etc.), as well as in many other categories which include job titles such as "Vice-president and Professor" or "Program Director and Associate Professor." Teaching is performed by individuals with job titles that fall into other categories than the main one for teaching — category 27. (This point is elaborated in Section III, Part B.)

In 1980, the Authorized Position File yielded 6,260 filled, full-time professional positions. In 1985, this total had risen to 7,702, or an average increase across all categories of 23 percent over the 5-year period. In Table 2.4 the actual numbers in each category are shown in Columns 1 and 2, and the relative decreases and increases in each category are shown in columns 4 and 5.

Which categories added relatively more staff than the average growth rate for all professionals of 23 percent? Those with the highest relative increase (over 40 percent) are listed and discussed below:

Category No.	Function	Percentage Increase
1	General Administration	59%
13	Staff Engineers, etc.	54
18,19,& 20	Student Affairs & Serv.	56
25	Athletics	47
28	Post-docs & Grad.Asst.	115

Table 2.4

Full-time Professionals
State University System - Florida

Category	Number of Professional Positions 1980-81		1985-86		Percentage Change Decrease	Increase
1. General Administration		131		208		59%
2. Deans	75		88			
3. Associate Deans	42		62			
4. Assistant Deans	62		69			
Subtotal Deans		179		219		22
5. Chairs, Chiefs, Program Director	412		480			
6. Assoc. & Asst. Chairs, Chiefs, Etc.	21		39			
Subtotal Chairs		433		519		20
7/8. Directors, Div. Directors	171		205			
9. Associate & Assistant Directors	35		52			
Subtotal Directors		206		257		25
10. Management Info., Computer Personnel		126		154		22
11. Public Relations, Alumni Relations		61		81		33
12. Physical Plant		42		53		26
13. Staff Engineers, etc.		13		20		54
14. Financial Adm.		62		78		26
15. Planning-Inst. Research		23		21	9%	
16. Human Resources Adm.	13		33			
17. Affirmative Action	6		12			
Subtotal Human Resources		19		45		37
18. Student Affairs	131		232			
19. Student Housing	24		33			
20. Student Health Services	42		42			
Subtotal Student Affairs & Services		197		307		56
21. Public Service		297		272	8	
22. Libraries, Museums		278		336		21
23. Registrar & Admissions		28		23	18	
24. Student Adv., Placement, Counseling		181		177	2	
25. Athletics		73		107		47
26. University Press, TV		10		11		10
27. Prof., Assoc, Assistant, etc.		3,725		4,435		19
28. Post-Docs., Graduate Assistants		176		379		115
Total		6,260		7,702		23

Category 13, Staff Engineers, accounted for only 20 positions in 1985, and therefore is not significant. The steep increase for Student Affairs and Services stems primarily from the Student Affairs group that includes job titles such as "Vice-President for Student Affairs," "Student Affairs Coordinator," and "Director of Student Financial Aid." Although out of the list of 18 job titles in the Student Affairs category only two refer to student financial aid, the latter function may be contributing to the expansion of positions in this category.

The growth in category 25, Athletics, was funded primarily via Florida's "Auxiliary" budget, which includes activities that are generating their own revenue, and are largely self-supporting. The increase of over 100 percent for category 28, Post-doctoral and Graduate Assistants, is accounted for primarily by "Contract and Grant" funding and suggests these individuals are utilized to a large extent in research and not teaching. (See Section III, Part B for their teaching responsibilities.)

The remaining category with a considerably larger than average growth rate is category 1, General Administration, with an expansion of 59 percent. Of the 77 positions added in 5 years for general administration, 48 were funded through the Education and General budget. The number of positions funded by and assigned to the Central Office (the Board of Regents) did not change. The job titles in this category include "President," "Vice-president," " Provost," "Assistant to the Vice-president" and "Attorney."

Growing at 30- to 40-percent rates are category 11 (pertaining to university relations, alumni and fund raising), and categories 16 and 17 (human resource management responsiblity). "Affirmative Action" (category 17) doubled, but still accounted for only 12 positions in 1985.

The one category with the largest absolute number of professionals is category 27, which encompasses the teaching and research faculty. Their job titles are those of professor, associate professor, assistant professor, and the like. This category expanded 19 percent, or less rapidly than the overall 23 percent growth rate for all professionals.

During the period when the category with primary academic responsibility (teaching and research) grew at 19 percent, student full-time-equivalent enrollment increased 6.5 percent, and Contracts and Grants (which represent research activity) increased 57 percent.

The number of Deans, Chairs, Program Directors and their associates and assistants (categories 2 through 9) grew at approximately the same rate as the average expansion of all professionals. Departments and programs multiply (and necessitate administrators) for several reasons. An increase in the number of students presents opportunities to start new programs that could not be offered with fewer enrollees. Specialization and splintering of disciplines into new ones has also contributed to the creation of new departments and programs in American higher education. (For example, just in the allied health field, specialized baccalaureate programs now exist in respiratory therapy, medical records administration, medical technology, radiologic technology, physical therapy and occupational therapy.) For the

Florida institutions, the relatively equal expansion of academic administrator and faculty positions suggests either that existing departments and programs grew and required more administrators, that new departments and programs were added, or that a combination of these two factors occurred. At any rate, academic administration does not appear to fall into a classification of overhead functions whose costs decline as they are averaged over more students. To the contrary, they appear to be variable costs.

Libraries, Museums and Physical Plant staff (categories 22 and 12, respectively) grew at the same rate as the total professional staff. The same is true for personnel with job titles related to management information and computer systems (category 10). The proliferation of data collection is a function that has sometimes been used to explain the expansion of professional staff in higher education. This is not borne out by this category. Indeed, the positions in category 15, therefore Institutional Research and Planning, declined 9 percent in Florida. Perhaps data collection functions are scattered throughout many of the other categories, because of the availability of personal computers.

Other decreases are noted for the following categories:

Category No.	Function	Percentage Decrease
21	Public Service	8%
24	Student Advising, Counsel., Placement, Testing, etc.	2
23	Registration & Admission	18

The absolute number in "Registration and Admission" is quite small, and exaggerates the decline. The public service category includes jobs whose titles are generally found in the educational laboratory schools and the cooperative extension service programs. Most of the positions in these programs are not funded by the "Education and General" budget. The decline in positions for student advising, counseling and placement services is surprising in view of the increased emphasis on these services throughout higher education.

B. Teaching Loads

The second phase of the analysis examines the average teaching loads of the State University System of Florida professional staff in 1980 and in 1985. The major responsiblity for teaching falls on category 27 — Professors, Associate Professors, etc. However, in all universities and colleges professionals with faculty rank hold other positions and may teach partial loads. For example, deans or associate deans typically hold faculty rank and teach some courses. Throughout the various functions and programs of a typical campus there are

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Table 2.5

Average Annual Semester Hours Taught by
Professional Staff - State University System of Florida

(Fall plus Spring Semester)

Category	1980	1985
1. General Administration	N.A.	.4
2. Deans	2.4	1.8
3. Associate Deans	3.1	3.2
4. Asst. Deans	5.1	7.2
5. Chairs, Chiefs,Prog. Dir.	9.4	6.9
6. Asso. and Asst. Chairs, etc.	14.0	9.5
7-8.Directors, Div. Directors	4.9	3.6
9. Asso. & Asst. Directors	4.0	2.4
10. Mgt. Infor.,Computer Pers.	.1	.3
11. Public Rel.,Alum.,Dvlp.	—	—
12. Physical Plant	.1	—
13. Staff Engineers	.3	1.5
14. Financial Administration	—	—
15. Planning, Inst. Research	.3	.1
16. Human Relations Admnist.	—	—
17. Affirmative Action	—	—
18. Student Affairs	.8	.3
19. Student Housing	—	.1
20. Student Health Service	.4	1.0
21. Public Service	—	.3
22. Libraries, Museums	.2	.3
23. Registration, Admission	—	.3
24. Student Adv., Placmt.	3.3	2.3
25. Athletics	.4	.3
26. Univers.Press, TV	—	1.2
27. Prof., Asso.Prof.,Asst.Prof. etc.	14.2	12.3
28. Post Doc.,Grad.Assts.	1.8	.7
Total-All Categories	10.2	8.4

(—) designates zero or less than .1 hour.

individuals whose primary function is not to teach, but who do teach occasionally. In order to include their contribution to teaching, instructional assignments were checked for all professionals.

By job titles, the 1980 and 1985 data files of all professionals who were accounted for in Table 2.4 were matched against the data files of all courses, and by whom they were taught, in the fall and spring for 1980-1981 and 1985-86, respectively.

This match (Table 2.5) produced a frequency distribution of the total number of semester hours taught over two semesters (in 1980 and 1985, excluding the summer semesters) by the same categories of professionals used in Table 2.4. Where not a single person in a category taught a course, the average hours taught for that category is zero. This result is to be expected in some categories, such as category 14, Financial Administration. The results slightly understate teaching loads because courses that have variable credit hours could not be included to produce the averages in Table 2.5.

The average teaching loads shown in Table 2.5 cover those taught by faculty and staff funded under all of the various budgets that are used by the State University System of Florida. The average number of semester hours taught annually by those in category 27 declined over the 5-year period from 14.2 to 12.3 semester hours, or from an average of 7.1 to 6.15 hours per semester.

The detail of the distribution of the teaching load for category 27 (Professors, etc.) is shown in Table 2.6. The decline in average teaching loads for the fall and spring semesters combined is observed not only when the positions funded by all budgets are included, but also when those under the

Table 2.6
Distribution of Faculty Teaching Loads, by Type of Funding
State University System of Florida

Teaching Hours:	0	1-7	8-11	12-15	16-19	20-23	24+	Average
All Budgets								
1985	20%	16%	12%	19%	13%	8%	12%	12.3hrs.
1980	16	16	11	14	16	12	15	14.2
Education and General Budget:								
1985	10	13	14	23	16	10	14	14.8
1980	7	11	13	17	19	14	19	17.0

"Educational and General" budget are considered separately. Under the latter budget, which entails the heart of State funding for instruction, (except medicine), teaching loads have declined 13 percent, almost exactly the same proportion as for positions under all budgets.

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The proportion of faculty with no or quite low teaching loads reflects those assigned primarily to research and service functions. Others who carry less than a full teaching load may be expected to have partial assignments for research and other functions.

Since category 27 comprises over 60 percent of the head-count total of all professionals in both years, the reduction of their teaching loads is the major reason for the drop from 10.2 to 8.4 semester hours when all professionals are included to produce the average in Table 2.5. However, notable drops in teaching responsiblities also took place in some other categories: 2 (Deans); 5 (Chairs); 6 (Asso. and Asst. Chairs); and 7, 8 and 9 (Directors and their Associates and Assistants). However, category 4 (Asst. Deans) experienced higher teaching loads over the 5-year period.

Reference was made on page 41 to the more than doubling in the number of positions in category 28, Post-Doctorals and Graduate Assistants. The teaching loads shown for these positions in Table 2.5 indicate that they are used primarily for research and other functions, and not instruction. For 1985, their average instructional load combined over two semesters was less than 1 credit hour.

Although the direction of change for some other categories is interesting (up for categories 10, Management Information-Computers; 13, Staff Engineers; and 20, Student Health Services), the average semester hours associated with these categories are too low to be noteworthy. Teaching loads by individuals with job titles in category 24, Student Advising, Placement and Counseling, have declined. This is a category that grew less rapidly in total positions than the average increase in the number of professionals. Perhaps the two findings are related. If their work load is increasing in their primary responsibilities, they have less time to teach courses in counseling or perhaps psychology.

The presentation of teaching loads by categories of professionals demonstrates the extent of administrative assignments for professionals who often are included in counts of faculty versus administrators. For example, department chairs are usually classified as faculties in national studies (such as the Center for Education Statistics data). Yet in Florida, such positions carry approximately three-fifths of the teaching load of the average position in the purely academic category 27.

To the extent that "academic administrators" (such as deans and chairpersons are often called) are also removed from the direct instructional functions, it is misleading to count vice-presidents of academic affairs as administrators, but classify deans under instructional costs. Such a system undercounts administration as contrasted to teaching, and probably research.

SECTION IV: Another Institutional View -- The University of Georgia

Personnel records of the University of Georgia afford an opportunity to analyze in detail the utilization of faculty and other professional manpower at a major comprehensive institution, known for its teaching, research, and public service missions. The University of Georgia is the flagship institution of the State, with an enrollment of over 25,000. It consists of 13 colleges offering baccalaureate degrees with concentrations in approximately 200 major fields, and doctoral degrees in 83 areas. Examples of its professional colleges are law, veterinary medicine and pharmacy.

As a land-grant and sea-grant institution, the University is heavily involved in research and public service, with an extensive system of agricultural and other experiment stations, and cooperative extension programs.

The University reported the following headcounts of its employees, by EEOC categories, for November 1986:

Category	No. Full-time	No. Part-time
1. Executive/Administ./Manag.	527	0
2. Instructional Faculty	1,664	124
3. Professional Non-Faculty	1,258	80
4. Non-Professional	4,139	499

This analysis deals with the first three categories. The file of staff employed for the last pay period in May 1986 was used. This file provides full-time equivalents (FTEs) for each individual and the unit in the University to which the person was assigned. The "executive/adminitrative/ managerial" (EAM) group includes persons with faculty appointments, but who serve as administrators. Examples of the job titles included under EAM in the file are vice-presidents, deans, their associates, administrators, directors, and department heads.

The "faculty" designation is used for individuals who have no job title other than their faculty rank. Graduate students are not included in this data file.

The non-faculty professionals include titles such as office manager, accountants, business manager, advisor, program specialist, coordinator, county extension agent, warehouse manager, and data processing manager.

The distribution of the three major types of professional personnel by twelve major groups of University units is shown in Table 2.7. The groups were constructed for this analysis, and do not follow the organizational structure of the University in all cases. The groups are defined as follows:

1. Direct academic support: academic vice-president, including program and faculty development, and graduate dean.

2. College of Arts & Sciences: 31 departments, Electron Microbiology Lab, and Center for Applied Mathematics

3. The other Colleges, with the exception of Agriculture, Veterinary Medicine, and Forestry

4. Colleges of Agriculture, Veterinary, Medicine, Forestry, with all their experiment stations, research colleges, and cooperative extension programs, plus National Institute for Instructional Materials (Agriculture) and Agricultural Communication Center.

5. Athletics (but not the Physical Education Department in the College of Education)

6. Research Centers and Institutes: research entities other than those associated with Colleges of Agriculture, Veterinary Medicine, and Forestry. This includes 14 entities including, for example, the Center for Applied Isotopes Research and the Office of Computing

7. Public Services: public services other than those in the Colleges of Agriculture, Veterinary Medicine and Forestry, including, for example, the Botanical Garden and the Institute for Government

8. Libraries and Museums (except the Law Library, which is included in the Colleges in group 3)

9. Student Services:
   A. Admission, Registration, and related activities
   B. Financial Aid
   C. Counseling, Testing, Career Placement
   D. Bookstore, Cafeteria, Housing

10. Physical Plant, Security, Public and Environmental Safety, Golf Course

11. Institutional Support
   A. President's Office
   B. Personnel, Affirmative Action
   C. Financial Administration
   D. Other Central Administrative Services (e.g., printing)

12. Alumni,University Relations, Development, Institutional Research, University Publications

The Colleges of Agriculture, Veterinary Medicine, and Forestry were combined with their experiment stations and cooperative extension service units, since these three Colleges are heavily involved in research and service, and staff often are assigned to both teaching and extension or service roles.

The classification of units into the twelve categories itemized above may not follow HEGIS in every detail, but does illuminate the functions and roles of the various parts of a major university.

The distribution of total EAM manpower across the twelve groups is shown in column 1, Table 2.7. The College of Arts and Sciences, accounting for almost half of the student enrollment, has only 6.7 percent of all EAM personnel. The heavy concentration of EAM staff in the Colleges of Agriculture, Veterinary Medicine, and Forestry (44.3 percent) is accounted for by their experiment stations, research centers and cooperative extension service. Cooperative extension service positions account for three-quarters of all the EAM positions in this group. Indeed, if the cooperative extension service were removed, the total EAM group for the entire University would be reduced by approximately one-third.

The remaining colleges (Business Administration, Education, Law, Home Economics, Journalism, Pharmacy, Social Work, and Environmental Design) account for 11.1 percent of total EAM personnel, and 44.3 percent of student enrollment. Research and service entities other than those covered in the Colleges of Agriculture, Veterinary Medicine, and Forestry account for 12.1 percent of EAM totals. The "overhead" functions (physical plant, institutional support, student services, and university relations) account for 17.7 percent of all EAM staff, while Libraries and Athletics account for .5 percent and 3.4 percent, respectively.

The distribution of instructional faculty is shown in column 2, with the largest concentration in the College of Arts and Sciences. The non-faculty professionals are shown in column 3. (These do not include the EAM positions.) The distribution of the non-faculty professionals is summarized below:

Office Management Office Managers, Administrative Specialists, Word Processors, Managers, etc.	7.3%
Business Management Business Managers, Accountants, Budget Managers, etc.	5.3%
Program Specialists Advisors, Program Coordinators, Research Coordinators, Education Program Specialists, etc.	11.7%
Others	75.7%

Half of the large group of "others" consists of county extension agents and technical personnel at the experiment and research centers of the Colleges of Agriculture, Veterinary Medicine and Forestry. Librarians are also included among "others."

The inclusion in the professional category of many positions with job titles such as administrative assistant, information specialist, conference facilitator, warehouse supervisor, and coordinators of various kinds (even word processing) raises the issue of whether these are positions that were once classified as clerical or technical that have been upgraded.

Table 2.7

Percentage Distribution of Professional Manpower
by Units of the University of Georgia, Spring 1986

	Enrollment	Exec/Adm/Mgr	Instructional Faculty	Other Professional
	Column 1	Column 2	Column 3	Column 4
1. Academic support		4.2%		.5%
2. Arts and science college	47.6%	6.7	37.4%	3.5
3. Other colleges excluding agriculture, veterinary medicine and forestry	44.3	11.1	27.8	7.7
4. Agriculture, veterinary medicine and forestry	8.1	44.3	26.2	51.8
5. Athletic	3.4			1.9
6. Research centers	6.9		4.8	2.9
7. Public services	5.2		3.2	6.5
8. Library, museum	.5		.5	6.9
9. Student Services				
Admissions, Registrar	2.5	)	1.5	
Financial Aid	.5	)	.5	
Career Placement Counselor	.5	).1	2.0	
Cafeteria, Housing, Bookstore	2.4	)	4.8	
Subtotal	5.9		8.8	
10. Physical Plant, Security	3.0		1.7	
11. Institutional Support				
President	1.0		.6	
Personnel Administrator	1.0		.6	
Financial Administrator	2.5		2.6	
Other Adminministrators	1.3		1.8	
Subtotal	5.8		4.8	
12. University Relations	3.0		2.8	
Total-All Units 100	100.0	100.0	100.0	

Ratios of administrators to faculty for each of the twelve groups are shown in Table 2.8. The first ratio in column 1 represents EAM staff as a percentage of faculty. For the entire University, the ratio is 30 percent. This ratio of administrators to faculty is analagous to what is used throughout labor markets to determine administrative loads.

No adjustment is made here for administrators who may not spend all of their time in administration, or for faculty with no other title than their instructional ranks, but who may also spend part of their time on administrative assignments.

The College of Arts and Sciences has the lowest proportion of administrators: 5.5 per faculty. The ratio for the other Colleges (except Agriculture, Veterinary Medicine, and Forestry) is 11.5 percent, and ranges from the lowest of 2.6 percent for Journalism to the highest, 36 percent for Law. The latter includes its own library, a continuing education program, as well as its own placement service and newsletter, activities which contribute to those identified in the file as EAM positions.

The proportion of administrators to faculty in three groups (the Agriculture, Veterinary Medicine and Forestry group, Research Centers, and Public Services) is almost 1 EAM per 2 faculty. The large number of extension service directors, the need for administrators at scattered sites, and the multiplicity of other fairly small service and research units account for this high ratio of EAM staff to faculty.

In column 2 of Table 2.8 an adjustment is made for two items: (1) the time EAM staff spend in administrative assignments, which may be less than 100 percent and; (2) the assignment of faculty to administrative duties. A separate University file for all personnel with faculty status shows the proportion of each person's FTE assignment to administrative duties. This file was used to adjust (reduce) the EAM counts used in column 1, and to add faculty assignments to administrative duties.

The adjusted measure is a clearer view of the time spent on administration than the percentages in column 1. For example, department heads, although counted as full-time EAMs in column 1, are reduced in column 2 to the proportion of their time assigned to administrative work, and faculty administrative time is added.

The campus-wide proportion of total FTEs for EAM and faculty positions assigned to administrative duties is 30.9 percent, almost the same as the unadjusted one (30.3 percent). This includes all EAMs, after adjustments for their non-administrative duties, plus all administrative assignments for faculty. Although campus-wide the adjusted and nominal ratios are almost identical, this masks differences in the direction of change between units of the University. In some units, faculty sharing of administrative duties is high enough to more than offset non-administrative duties of designated administrators, while in others the reverse is the case.

Table 2.8

Ratios of Administrative FTEs to Faculty FTEs
by Units of
The University of Georgia, Spring 1986

Percentage of:	Exec.Adm Mgr/ Faculty	Adjusted Exec. Adm.Mgr/ Faculty	Faculty Adm. Time/ Faculty	Non-Faculty Profess./ Faculty
	Column 1	Column 2	Column 3	Column 4
1. Academic Support				
2. A&S College	5.5%	6.1%	3.5%	6.7%
3. Other Colleges Executive, Agriculture Veterinary, Forrestry	12.1	12.9	5.0	19.8
4. Agriculture, Veterinary, Forestry Colleges	51.3	52.3	4.0	141.7
5. Athletic				
6. Research Centers	43.6	38.3	1.6	43.5
7. Public Services	49.1	49.3	4.9	143.8
8. Library, Museum				
9. Student Services Admissions Registrar Financial Aid Career Placement Counselors Cafeteria, Housing, Bookstore				
10. Physical Plant Security				
11. Institutional Support President Personnel Administrator Financial Administrator Other Administrators				
12. University Relations				
Total-All Units	30.3	30.9	4.2	72.0

5.1

The College of Arts and Sciences still has the lowest ratio of administrative time according to this measure — 6.1 percent. Although the adjusted ratios for the remaining eight colleges (after Arts and Sciences and the Agriculture, Veterinary Medicine and Forestry Colleges are excluded) is higher than the unadjusted ratio, there is considerable variation between colleges. Three, with less sharing of administrative duties among faculties, have a net drop in administrative FTEs, while five colleges show a gain. Research centers and institutes (other than those in Agriculture, Veterinary Medicine, and Forestry) show a drop in the adjusted administrative ratios.

When the nominal administration ratios in column 1 are used, there is no relationship among the nine colleges (after excluding Agriculture, Veterinary Medicine, and Forestry) between the size of their enrollments and their administrative ratios. However, when the adjusted ratios of administration to faculty are used, a pattern emerges whereby the largest Colleges have the lowest ratios. The only major exception to that is the Law School.

The University Office of Institutional Research has been publishing a somewhat different measure for many years: percentages of time reported for administrative activity by academic staff. Academic staff does not include EAM staff without faculty status, but does include graduate assistants who are not covered by the file used in this analysis. The University's measure of the total percentage of academic staff time devoted to administration has increased from 8.2 percent in academic year 1978-79 to 15.5 percent in 1985-86. During this same period the percentage of time reported by academic staff for instruction decreased from 46.4 percent to 36.5 percent. Public service and research combined rose by 2.6 percent. Stated another way, one-quarter of the reduced teaching time was redirected into public service/research; three-quarters went to more administration.

When a rough measure of faculty teaching loads is used (annual average class sections per faculty, divided by three-quarters, times average credit hours per class section divided by the average number of students per class), the teaching load has declined from an average of 8.3 hours per week in 1975 to 6.9 hours in 1986.

The ratio of the faculty administrative assignments to faculty FTEs is shown in column 3 of Table 2.8. Among the colleges, Arts and Sciences shows the lowest proportion — 3.5 percent. Among the "Other" 8 colleges (Business Administration, Education, Law, etc.) there is generally an inverse relationship between the ratios of administrators to faculty, and the proportion of faculty administrative time to faculty FTEs.

Non-Faculty Professionals

The ratio of non-faculty professionals to faculty is shown in column 4, Table 2.8. For the entire University, 72 such individuals are employed for every 100 instructional faculty. The greatest concentration is in the colleges impacted by the experiment stations and cooperative extension programs. Without the cooperative extension service, the university-wide ratio would be reduced from 72 to 51 professionals per 100 faculty.

During the last decade the number of full-time non-faculty professionals at the University has increased by 40 percent. During the same period the full-time instructional faculty declined by 4 percent, although if part-timers are added, the head-count for faculty shows an increase of 3 individuals.

Summary. In summary, the following findings are highlighted as regards the University of Georgia data:

- "Overhead" functions for the entire University account for approximately 18 percent of all EAM positions. The Colleges of Agriculture, Veterinary Medicine and Forestry, with their associated research and service units, account for 44 percent, and research and service units account for another 12 percent. The other colleges (with 92 percent of the student enrollment) account for only 22 percent of the EAM positions when direct academic support is included. Libraries (.5 percent) and athletics (3.4 percent) make up the remainder.

- Non-faculty professionals (other than the executive/administrative/ managerial) constitute the fastest growing group of employees in the University. The greatest accumulation of these non-faculty professionals is found in the Colleges of Agriculture, Veterinary Medicine and Forestry and is tied to their experiment stations and service missions. The other research and service missions of the University (centers and institutes) also contribute disproportionately to the employment of non-faculty professionals, relative to their assigned faculty positions.

- In higher education, nominal administrators may also engage in teaching, research and service, while some instructional faculty share the administrative duties. Thus a more exact measure of administrative time in higher education is one that adjusts for these assignments. Campus-wide, the adjusted percentage of administration as a percentage of faculty is almost the same as the unadjusted one. The extra time faculty spends in administration is almost offset by non-administrative assignments of the EAM group. However, not all colleges or units of the University exhibit this even exchange. By either measure, however, the College of Arts and Sciences exhibits the lowest ratio of administrators.

- The time spent on administrative assignments by academic staff is increasing, while the teaching load is apparently declining.

SECTION V: State Agency Reports

Each higher education agency in the 50 States and the District of Columbia was asked to provide available data regarding expenditure and staffing changes as they might relate to administrative and support functions. This section presents data from those States that provided longitudinal data, or other significant information that deals with the components of institutional staffing. All the data presented originated from reports supplied by the respective State higher education governing or coordinating agencies, unless otherwise referenced.

Colorado

A recent legislative bill specifically charged the Colorado Commission on Higher Education (CCHE) to research administrative costs in higher education and to report these findings to the Legislature.

The Commission prepared a 5-year comparison (1981-86) of compensation costs as well as FTE positions. This is shown in Table 9. The share of compensation and FTEs for professionals declined, while the shares for support, student services, and administration rose. Also declining are the shares for physical plant and for libraries. The shares for computer services (ADP) increased.

Student enrollment decreased 4 percent during this period. In absolute terms, professional staff remained stable, but staffing for support functions, student services, administration and data processing increased.

"Professional" in the Colorado data refers to faculty and administrators who are in areas "directly supporting educational services." "Administration" staff and costs are those that do "not directly support an educational area."

The CCHE is charged with developing new policies for administrative costs.

Idaho

The data supplied by the State Board of Education of Idaho pertain to senior colleges and universities, including agricultural research and health professions, and are shown below.

Distribution of Total Staff

Idaho Senior Institutions

	Faculty	Non-Faculty Professionals	Classified
1981	47.6%	11.7%	40.7%
1987	47.8	13.5	38.7

The percentage of non-faculty professionals has risen from 11.7 percent of total FTE personnel in 1981 to 13.5 percent in 1987. In the meantime, faculty rose slightly, while classified (or non-professional) fell from 40.7 percent

Table 2.9

Compensation and Staffing by Expenditure Categories,
Colorado Public Institutions
All Governing Boards, 1981-1986

Percentage of:

	Compensation		FTE Staffing	
	1986	1981	1986	1981
Professional*	59.36	61.19	52.09	52.99
Support	10.64	9.72	13.60	12.57
Student Services	7.28	6.49	8.31	7.45
Library	4.34	4.48	5.65	5.92
Data Processing	3.30	2.80	3.32	2.85
Administration**	7.55	7.51	7.39	7.26
Physical Plant	7.53	7.81	9.63	10.97
Total	100.00	100.00	100.00	100.00

*"Professional" refers to faculty and administrators in areas directly supporting eductional services.
**"Administration Expenditures" do not directly support an educational area.

Source: Unpublished data supplied by Colorado Commission on Higher Education.

to 38.7 percent of total staff. "Classified Personnel" in Idaho includes technical positions.

The proportion of non-faculty professionals varies inversely with the institution's enrollment in Idaho. Boise State University and the University of Idaho, the two largest in enrollment, had 14 and 12 percent respectively in the non-faculty professional category, while Lewis-Clark State College, with the smallest enrollment, had 21 percent.

The State Board of Higher Education conducted a cost study for academic year 1984-85 using the National Center for Higher Education Management System (NCHEMS) standards. One of the NCHEMS cost classifications is for "Institutional Support," which includes the following sub-categories: executive management, fiscal operations, general administrative service, logistical service, physical plant operations, public relations, and admission and records. Institutional support ranged from 18.8 percent to 24.8 percent of total direct cost in the four senior institutions for that year.

Kentucky

The Kentucky Council on Higher Education compilation of Equal Employment Opportunity Commission reports from 1975 through 1985 shows the following changes in the proportions of various types of personnel:

Distribution of Total Staffing, Public Institutions

	1975	1985
Faculty	28.3%	29.2%
Non-Faculty Professional	12.4	17.5
Executive, Administrative, Managerial	7.9	5.0
Other	51.4	48.3
Total	100.0	100.0

Top-level executives and administrators shrank both as an absolute number and relatively. However, non-faculty professionals expanded so as to more than offset the decline in the executive-administrative and managerial group.

Maryland

On the basis of expenditure increases from Fiscal 1986 to the request for 1988, "Institutional Support" ranks first among all program components for the University of Maryland, and third for the other Maryland State Colleges and Universities. (See Table 2.10.) On the basis of relative increases in the number of positions for the same period, however, "Institutional Support" ranks fifth for the University of Maryland and first for the other State Colleges and Universities. Differences in rankings between "Expenditures" and the "Number of

Table 2.10

Maryland Staffing & Expenditures

University of Maryland

Percentage changes FY 1986 to FY 1988 request

	Program Expenditures		Number of Positions by Programs	
Institutional Support	27%	(1)	2%	(5)
Research	26	(2)	16	(1)
Hospitals	23	(3)	4	(3)
University College	21	(4)	0	(7)
Agricultural Exp. Stat.	17	(5)	1	(6)
Center for Environ. Study	16	(6)	0	(7)
Instruction	13	(7)	0	(7)
Auxiliary Enterprises	13	(7)	12	(2)
Cooperative Extension Service	13	(7)	-3	(8)
Plant Operations	11	(8)	1	(6)
Student Services	9	(9)	1	(6)
Public Service	9	(9)	0	(7)
Academic Support	7	(10)	3	(4)
Scholarships & Fellowships	-2	(11)	-	-
Total	16		3	

Maryland State Colleges & Universities*

Percentage changes FY 1986 to FY 1988 request

Academic Support	16%	(1)	1%	(4)
Auxiliary Enterprises	14	(2)	6	(3)
Institutional Support	13	(3)	12	(1)
Instruction	11	(4)	1	(4)
Plant Operations	10	(5)	1	(4)
Student Services	9	(6)	7	(2)
Scholarships & Fellowships	0	(7)	-	-
Research	-15	(8)	-	-
Public Service	-22	(9)	0	(5)
Total	12%		3%	

*Except University of Maryland

(Numbers in parenthesis indicate ranking of each of program element, with Number 1 being the highest.)

Source: Maryland State Board for Higher Education, SBHE Consolidated Capital and Operating Budget for Higher Education, Annapolis, Maryland, November 1986.

Positions" are explained primarily by uneven relative changes of salaries to the number of positions. For example, while the number of positions in "Institutional Support" for the University of Maryland increased by only 2 percent, the expenditures for this component rose 27 percent.

Missouri

For all higher education institutions in the State, executive, administrative and managerial staff has increased as a proportion of total staff from 5.9 percent in 1979 to 6.7 percent in 1983. Non-faculty professionals rose from 9.3 percent to 10.8 percent. The 1985 report, Employment in Missouri Public Higher Education Institutions 1979 to 1983, comments about the Executive, Administrative or Managerial staff: "... this is the second smallest group of employees on the campuses, but the fastest growing with an increase of 166 over the four year period. This category includes such titles as president, vice-president, dean, or director, as well as subordinate titles such as assistant dean if the primary responsiblity is administrative."[12]

"Professional non-faculty employees increased fourteen percent statewide, growing by 258 staff members. This is somewhat of a catch-all category of employment generally including all those positions requiring college education but which do not involve teaching or the exercise of independent discretion on matters of policy. Examples of positions in this category would include budget analysts and programmer/analysts."

The staff of the Missouri Coordinating Board indicates by letter that the administrative expenditures and their rate of increase have been highly controversial in legislative hearings, but that institutions are attempting to trim administrative and support increases at least modestly.

Nebraska

In Nebraska, total non-teaching professionals have increased slightly as a percentage of total staffing from 1981-82 to 1985-86. (See Table 2.11.) This increase is accounted for by professionals who are non-faculty, while both academic and non-academic administrators have declined as a percentage of total staff. One explanation offered by Nebraska Coordinating Commission staff is that data processing personnel have contributed to the more rapid growth of non-faculty professionals, while pressures to cut positions have resulted in reductions in the share of administrators.

New York

The trend in the distribution of higher education staffing in New York institutions is shown in Table 2.12. This state tracks the distribution of staff in private as well as public institutions. The proportion of administrators is higher in the independent and proprietary institutions. However, the proportions are increasing in the public ones, while decreasing in the private sector. Professionals other than faculty and administrators have shown the greatest relative increase in the independent institutions from 1984 through 1986. The proportion of non-professionals is declining in both sectors.

Table 2.11

Percentage of Total Staffing
Nebraska Higher Education+

	Academic Administrators		Non-Acad. Administrators		Profes. Non-Faculty		Total Non-Teaching Professional	
	1985-1986	1981-1982	1985-86	1981-82	1985-86	1981-82	1985-86	1981-82
All Institutions	1.4%	1.7%	5.2%	5.4%	19.2%	17.6%	25.8%	24.7%
Except Wayne State*		1.6		5.5		17.8		24.9

Percent of Total Staff Salary Expenditures
Nebraska Higher Education

	Academic Administrators		Non-Acad. Administrators		Profes. Non-Faculty		Total Non-Teaching Professional	
	1985-1986	1981-1982	1985-86	1981-82	1985-86	1981-82	1985-86	1981-82
All Institutions	3.3%	4.3%	8.2%	8.3%	18.5%	17.7%	30.0%	30.3%
Except Wayne State*		4.2		8.4		18.0		30.6

+Includes State and Non-State Aided.
*Wayne State did not supply data for 1985-86.

Source: Unpublished data supplied by Nebraska Coordinating Commission for Postsecondary Education.

Rhode Island

The proportions of major categories of higher education personnel for the three public institutions in Rhode Island for the current year are shown below.

Distribution of FTE Positions, 1986-1987
Rhode Island Public Institutions

	Faculty	Non-Faculty Professional-Technical	Non-Professional	Restricted Non-Faculty Professional-Technical
University	28.0%	23.7%	48.3%	56.6%
State College	42.3	20.0	37.7	16.5
Community College	44.3	26.4	29.3	22.0
All Institutions	33.7	23.3	43.0	43.2

Source: Unpublished data supplied by the Office of Higher Education, Providence, Rhode Island.

These data illustrate the differences in staffing patterns between different types of institutions. The State College has the lowest proportion of non-faculty professionals. (In Rhode Island, this group includes a broad range of positions, ranging from president to technical positions such as library assistants and administrative secretaries. Deans, and associate and assistant deans are also included in this group.) The community college, on the other hand, has the lowest proportion of non-professionals. One determinant of the proportion of non-faculty professionals appears to be the mix of "unrestricted" and "restricted" positions. The restricted positions are funded by grants or auxiliary enterprise funds and are associated in Rhode Island with the higher proportions of non-faculty professional positions that are found in the University as compared to the other institutions.

Tennessee

The Tennessee Higher Education Commission supplied information for Tennessee. The changes in the distribution of personnel in the public higher education institutions in Tennessee from 1982 to 1986 are shown below:

Distribution of Personnel in Tennessee Institutions

	1982-83	1986-87
Faculty	39%	38%
Administrative	17	19
Clerical	44	43

From academic year 1982-83 to 1986-87, expenditures for "institutional support" rose 74 percent for the Tennessee institutions. Included in this category are

Table 2.12

Distribution of Staff
New York Institutions of Higher Education

	1983-84	1984-85	1985-86
Public Institution			
Executive Admin. Mgr.	2.9%	3.1%	3.7%
Instruct. Faculty	49.8	50.9	51.1
Other Professional	12.4	13.1	13.0
Non-Professional	34.9	32.9	32.1
Independents			
Ex. Adm. Mgr.	9.0	8.5	8.1
Instructional Faculty	42.9	43.0	43.2
Other Professional	11.7	13.0	16.2
Non-Professional	36.4	34.8	32.5
Proprietary			
Ex. Adm. Mgr.	14.2	14.7	13.5
Instructional Faculty	67.4	67.2	65.9
Other Professional	6.2	6.2	7.6
Non-Professional	12.3	11.9	13.0

Source: State Education Department; College & University Employees, New York State 1985-86, Albany, N.Y., 1986

the "president's office, safety and security, business office, personnel office, catalogs and information."

Tennessee funds the public institutions on the basis of a formula which establishes the following amounts for "institutional support": a base rate of $125,000 plus 11.5 percent of the first $12 million of education and general expenditures (exclusive of Institutional Support, Retirement and Social Security), plus 8.3 percent of education and general expenditures exceeding $12 million.

During the development of the Governor's Budget for 1987-88, the Governor recommended, and the Legislature approved, a seven percent reduction in the funding of institutional support for higher education. The Executive Director of the Tennessee Higher Education Commission reports that this reduction will be considered as a permanent adjustment to institutional support budgets and will not be restored in future fiscal years.

Texas

The Select Committee on Higher Education sponsored a comprehensive management review of all higher education institutions in Texas in 1986. The public accounting firm of Coopers and Lybrand issued its December 1986 report, A Review of Governance and Management Practices in Texas Public Higher Education. The report states, "The greatest increase in total salary expenditures has been for administrative employees in senior institutions (up 83 percent between 1980 and 1985, versus a 63 percent increase in total expenditures for faculty salaries). In the last 2 years, while a 'hiring' freeze was in effect, faculty employment in senior institutions indeed stayed flat and classified employment actually declined 2.2 percent. Meanwhile, employment of administrative FTEs increased over 11 percent, reflecting a shifting of emphasis to administratrive personnel."[13]

West Virginia

Concern was raised in West Virginia in 1986 about the number of and cost for administrators at West Virginia University. President Neil Bucklew commissioned the National Center for Higher Education Management Systems to conduct a study on this problem.[14]

A group of eight comparison universities was selected: Auburn University, University of Cincinnati, University of Georgia, University of Kentucky, Louisiana State University, University of South Carolina, University of Tennessee, and Virginia Polytechnic University. The study concludes that West Virginia University (WVU) is average for the number of administrators, after allowance is made for excluding two comparison institutions that are part of a system. In those institutions, some administrative functions are performed by the central office of the system. However, the numbers of deans, associate deans, and assistant deans at West Virginia University were found to be considerably above average.

When the numbers of administrators and deans were scaled relative to student enrollments and the number of faculty, WVU was found to have more administrators and deans than the comparison institutions.

SECTION VI: Summary and Conclusions

This report examines the use of professional manpower in higher education from the perspective of available national data series, two institutional analyses (The University System of Florida, and the University of Georgia), and reports submitted by State higher education agencies.

National longitudinal data indicate that the costs of administering higher education have risen more rapidly than "Educational and General" expenditures, and more rapidly than "Instructional" expenditures. Administrative costs now represent 19.2 percent of Educational and General expenditures, as compared to 12.5 percent in academic year 1949-50. When adjustments are made to account for the changed relationship of instruction relative to the research and public service roles, for every dollar spent on instruction, adjusted administration costs have risen from 17.6 cents to 29.7 cents for the same period.

Most of the increased administrative expenditure shares occurred in the 1960s and early 1970s, although a creeping increase has resumed in the 1980s.

Staffing data indicate a more rapid growth of non-teaching professionals (including administrators and other professionals) than of faculty. While the number of faculty rose as a share of total staffing through 1976, this trend has been reversed. From 1966 to 1983, non-teaching professionals increased from 17.5 percent in 1966 to 23.2 percent in 1983. At the same time, the share that non-professionals constitute of total staff declined considerably.

The two institutional studies corroborate and provide details of the continuing escalation in the number of non-teaching professionals. The data from the State University System of Florida show that professionals with general administration titles (as contrasted to specifics such as fiscal or student service functions) grew more than twice as fast as faculty.

The University of Georgia's records show an almost doubled proportion of academic staff activity in administration from academic year 1978-79 to 1985-86, and a rapid escalation during the past decade in the proportion of non-teaching professionals other than those who are designated as executive, administrative or managerial.

Reports from State higher education agencies indicate that for the most part their trends are similar to those observed in Georgia and Florida. There is a general escalation relative to total staffing in the share of professionals who are neither faculty nor executive/administrative/managerial. The executive/administrative/managerial percentage of total staff has risen in several of the reporting States, although a few report a small reduction. The rise of institutional support costs has become an issue in several States, and has prompted action in a few instances. Comparisons between States are hampered by the different terms used to classify higher education personnel.

The two institutional analyses shed some light on the functions in which the professionals other than faculty are used, as well as on the utilization of

faculty. The functions with the most notable rise in numbers in Florida during the past 5 years are general administration (59 percent), student affairs and services (56 percent), and athletics (47 percent). Instructional faculty at the same time increased by only 19 percent -- less rapidly than the 23 percent growth rate for all professionals. Annual teaching loads (over 2 semesters) dropped during these years from an average of 14.2 hours to 12.3 hours. The examination of the number of hours taught by personnel with various titles shows that persons who are sometimes counted as intructional faculty (instead of executive/administrative/managerial) may carry reduced teaching loads. Departmental chairs in Florida, for example, carry teaching loads that are 60 percent of the average for the instructional faculty.

The University of Georgia data illustrate for one major institution the units or functions which account for executive/administrative/managerial and non-faculty professionals. Arts and Sciences account for minor shares relative to their enrollment and faculty. "Land Grant" functions (e.g., agricultural experiment stations and cooperative extension service) and a multiplicity of "centers" and "institutes" contribute disproportionate shares of administrators and non-faculty professionals relative to faculty. Government funding by separate grants and programs, which often carry their own allotments of administrative and support staffing, may have contributed to the disproportionate increase of non-teaching professionals.

Measures of administrative levels that depend solely on those positions designated as administrators may not clearly represent administrative costs. Where instructional faculty sharing of administrative duties more than offsets the time administrators spent on non-administrative duties, the total adjusted administrative time may exceed nominal counts. At the University of Georgia, where assignment data for each person with faculty status are available, the campus-wide adjusted rate of administrative FTEs (30.9 percent) is almost the same as the nominal rate (30.3 percent). However, individual Colleges and other units of the University show considerable difference in the direction of change for the adjusted ratio.

The escalation of non-teaching professionals (other than the executive/administrative/managerial group) and the decline in the share of non-professionals which was noted nationally and in some of the State reports is very evident at the University of Georgia. There, county agents account for a major share of the non-teaching professionals. However, numerous job titles (e.g., word processing manager, coordinator, warehouse manager, and office managers) raise the question of whether these positions were upgraded from previous non-professional ones.

"Credentialism" and "upgrading" have facilitated the absorption of the flood of college graduates relative to job openings into the labor market of the early 1980s, as employers shifted positions to higher classification levels. As higher education contributes to "credentialism" in business and industry by providing more college graduates than the labor markets may need, the educational institutions themselves may be upgrading their own jobs. A switch to professional from non-professional jobs entails higher personnel costs. If positions truly require professional skills and training, the upgrading may be

necessary. If they represent prior duties with new titles, this may not be the case. More detailed research than was possible in this study would shed light on this issue.

In this analysis an effort was made to insulate the rise of administrative costs from the growing roles of research and public service by assuming that each of the three major functions of higher education contributes to administrative costs in direct proportion to its share of expenditures. The validity of this assumption is not known, and needs further investigation. (The Bowen data for 1976-77 make the same assumption regarding the distribution of administrative expenditures, and therefore do not clarify the validity of this assumption.) Perhaps research and public service contribute disproportionately to administration, as compared to instruction. Perhaps the very nature of their funding, with grants and programs carrying their own allocations for indirect costs, result in the expansion of administrative and support positions. If research and public service produce such disproportionate burdens, are there ways to reorganize these functions and their funding to reduce these costs?

New functions that some institutions have shouldered (e.g., educating non-traditional students, and expanded financial aid) may be contributing to the growth of non-teaching professionals. Another possible explanation is the division of administrative and support job functions across separate and more specialized jobs. For example, whereas one job title in the past may have covered all aspects of personnel administration, as new duties are added, new job titles appear for more discrete roles. Now come affirmative action, benefits package, information, and data management specialists. Individuals with these various specialized duties must interact, and the coordinator's position is created. More committee meetings are needed. Has work become overly divided?

The imperative need for American industry to compete with foreign markets has led the private sector to examine its proliferation of middle management positions, part of which resulted from the specialization and splintering of job functions. The reversal of highly splintered assignments to more varied duties on production lines has also affected the white collar sector, contributing to the deliberate reduction of middle management in major sectors of American industry. Between 1984 and the spring of 1986, 600,000 middle- and upper-level executives lost their jobs, according to Joe Coates.[15] This includes giants such as AT&T, all the major automobile manufacturers, Bank of America, Owens-Illinois, Union Carbide, I.T.T., Dupont, General Electric and Wang corporations.

The impact of regulation is sometimes cited as a reason for the increase of non-teaching professionals in higher education. Yet firms such as those named above have not been immune from regulation, either.

While higher education is not confronted by foreign competition, it may encounter sharper competition in the allocation of public resources as the older segment of the population expands and the younger segment shrinks. As Bowen wrote in 1980, "A pronounced effect of affluence is to expand staff of all kinds relative to the student body. Surprisingly, however, as institutions become

more affluent the numbers of administrative and nonprofessional staff increase more than the numbers of faculty. The fruits of growing affluence lie more largely in additional administrative and nonprofessional staff than in additional faculty."[16]

The escalation of non-teaching professionals in higher education and the increased proportion of administrative costs suggest that institutions need to evaluate their staffing patterns to determine whether more efficient utilization of personnel is possible.

Footnotes

[1]Michael O'Keefe, "College Costs—Have They Gone Too High Too Fast?", Change, May/June 1986, p. 6.

[2]U.S. Department of Education, Office of Educational Research and Information, Bulletin, February 1987, p. 22.

[3]The College Board, College Cost Book, New York, New York, 1987.

[4]Howard R. Bowen, The Costs of Higher Education, Jossey-Bass Publishers, San Francisco, 1980, p. 151.

[5]Ibid., p. 258.

[6]U.S. Department of Education, HEGIS XIX Form 2300-4, 1984.

[7]Howard R. Bowen, op. cit., p. 259.

[8]Center for Education Statistics, Digest of Educational Statistics 1987, U.S. Government Printing Office, Washington, D.C., 1987, p. 122.

[9]The EEOC instructions on the survey form indicate deans and assistant deans, and departmental chairs are to be counted as administrators if their primary responsibility is management.

[10]Howard R. Bowen, op. cit., p. 138.

[11]Pamela Tolbert, "Institutional Environments and Resource Dependence: Sources of Administrative Structure in Institutions of Higher Education," Adminstrative Science Quarterly, March 1985, pp. 1-13.

[12]Missouri Coordinating Board for Higher Education, Employment in Missouri Public Higher Education Institutions 1979 to 1983, Jefferson, Mo., February 1985.

[13]Coopers & Lybrand, A Review of Governance and Management Practices in Texas Public Higher Education, Executive Summary, Select Committee on Higher Education, Austin, Tex., December 1986, p. A-29.

[14]National Center for Higher Education Management Systems, Senior Administration at West Virginia University, Boulder, Colorado, February 1987.

[15]As quoted in Susan R. Sanderson and Lawrence Schein, "Sizing up the Down-sizing Era," Across the Board, November 1986, p. 15.

[16]Howard R. Bowen, op. cit., p. 140.

Appendices

APPENDIX A

Administrative Expenditures Related to "Instruction" in Higher Education 1929-1985

(dollar amounts in hundreds of thousands)

Line		1929-30	1939-40	1949-50	1959-60	1969-70	1971-72	1973-74	1974-75	1975-76
1.	Instruction (a)	$ 222	280	781	1,793	7,653	9,503	11,574	11,798	13,095
2.	Academic Support (b)		27	119	294	648	780	838	1,254	1,249
3.	Total "Instruction"	222	307	900	2,087	8,301	10,283	12,412	13,052	14,344
4.	Research and Public Service (c)	43	62	312	1,228	3,772	2,881	3,212	4,230	4,526
5.	"Instruction" as Percent of 3 Functions	84%	83.2%	74.3%	63.0%	68.8%	78.1%	79.4%	75.5%	76.0%
6.	Institutional Support (d)	43	63	213	583	2,628	3,344	4,201	3,057	3,615
7.	Student Services								1,439	1,625
8.	Total Administrative	43	63	213	583	2,628	3,344	4,201	4,496	5,240
9.	Allocation of Administrative (e) to "Instruction"	36	52	158	368	1,808	2,612	3,336	3,395	3,982
10.	Percent Administrative Relative to "Instruction"	16.2%	16.9%	17.6%	17.6%	21.8%	25.4%	26.9%	26.0%	27.8%
11.	Percent Adjusted Institutional (f) Support Relative to "Instruction"	-	-	-	-	-	-	-	17.7%	19.2%

(continued on next page)

APPENDIX A (continued)

Administrative Expenditures Related to
"Instruction" in Higher Education
1929-1985

(dollar amounts in hundreds of thousands)

Line		1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85
1.	Instruction (a)	$14,031	15,336	16,663	18,497	20,733	22,963	24,673	26,436	28,777
2.	Academic Support (b)	1,545	1,781	2,044	2,253	2,514	2,734	3,047	3,300	3,712
3.	Total "Instruction"	15,576	17,117	18,707	20,750	23,247	25,697	27,720	29,736	32,489
4.	Research and Public Service (c)	4,943	5,345	6,041	6,916	7,716	8,134	8,585	9,223	10,413
5.	"Instruction" as Percent of 3 Functions	75.9%	76.2%	75.6%	75.0%	75.1%	76.0%	76.4%	76.3%	75.7%
6.	Institutional Support (d)	3,762	4,142	4,557	5,054	5,773	6,471	6,951	7,763	8,587
7.	Student Services	1,828	2,035	2,275	2,567	2,909	3,177	3,461	3,798	4,178
8.	Total Administrative	5,590	6,177	6,832	7,621	8,682	9,648	10,412	11,561	12,765
9.	Allocation of Administrative (e) to "Instruction"	4,243	4,707	5,165	5,716	6,520	7,332	7,955	8,821	9,663
10.	Percent Administrative Relative to "Instruction"	27.2%	27.5%	27.6%	27.5%	28.0%	28.5%	28.7%	29.7%	29.7%
11.	Percent Adjusted Institutional (f) Support Relative to "Instruction"	18.3%	18.4%	18.4%	18.3%	18.6%	19.1%	19.2%	19.9%	20.0%

Source: U.S. Department of Education, National Center for Education Statistics, "Financial Statistics of Institutions of Higher Education" survey, as shown in Digest of Educational Statistics, 1985-86, and Office of Educational Research and Improvement Bulletin, Feb. 1987.

Notes:

a. Changes in the HEGIS reporting system necessitate various combinations of data elements to achieve comparability. "Instruction and Departmental Research" for 1929-1974 correspond to "Instruction" for succeeding years.

b. "Related Activities" for 1929-1974 correspond to "Academic Support Excluding Libraries" for succeeding years.

c. "Separately Organized Research," and "Extension and Public Services" for 1929-1974 correspond to "Research" and "Public Service" for succeeding years.

d. "General Administration and General Expense" for 1929-1974 correspond to "Student Services" and "Institutional Support" for succeeding years. Academic Administration (eg., deans) is part of "Instruction" in all years.

e. Line 8 is multiplied by the percentage that "Instruction" constitutes of the total of "Instruction, "Research," and "Public Service" as shown in line 5.

f. Prior to 1974-75 "Institutional Support" was included in the total for "General Administration and "General Expense." "Adjusted" refers to line 6 multiplied by line 5, divided by line 3.

APPENDIX B

1985 Positions by Category
State University System

Category	Title 85
1. General Administration	
	President
	Vice President & Professor
	Vice President and Associate Professor
	Vice President & Assistant Professor
	Associate Vice President & Professor
	Assoc, Vice President & Associate Professor
	Assistant Vice President & Assistant Professor
	Assistant Vice President & Professor
	Assistant Vice President & Assistant Professor
	Assistant Vice President - Academic Affairs
	Provost & Professor
	Provost & Associate Professor
	Provost & Assistant Professor
	Academic Administration
	Research Analyst
	Legal Writing Assistant
	Chancellor
	Executive Vice Chancellor
	Vice Chancellor
	Assistant Vice Chancellor
	Assistant Vice Chairman & Director
	Assistant to Vice Chancellor
	Corporate Secretary State University System
	Director Capital Programs
	Associate Vice Chancellor
	Coordinator of Analysis
	Director Academic Programs
	Coordinating Instructor Residence
	Associate Director Solar Energy
	Program Review Coordinator
	Program Review Assistant
	Executive Vice President
	Vice President Health Affairs
	Vice President Agricultural Affairs
	Assistant Vice President Administrative Affairs
	General Counsel, State University System
	Executive Assistant to President
	Assistant to University President
	Assistant to Executive Vice President
	Assistant to Vice President Administrative Affairs
	Assistant to Vice President Academic Affairs
	Assistant to Vice President Health Affairs
	Assistant to College Dean
	Executive Assistant to Vice President Health

Category	Title 85

1. General Administration (continued)

University Attorney
Associate University Attorney
Associate Dean Counsel
Associate Vice President for Administrative Affairs
Grants Development Coordinator
Director Lab Animal Research
Asst Director Admin U School
Director Agricultural program Development
Director Medical/Health Adm
Associate Director Medical/Health Adm
Assistant Director Medical/Health Adm
Assistant Director University Research
Coordinator Special Studies
Special Program Review
Faculty Program Consul
Academic Planning Coordinator
Coordinator Planning Studies
Blood Bank Director
Assistant General Counsel, State University System

2. Deans

Dean of Faculties & Professor
Dean of Faculties & Associate Professor
Dean & Professor
Dean & Associate Professor
Dean & Assistant Professor

3. Associate Deans

Associate Dean & Professor
Associate Dean & Associate Professor
Associate Dean & Assistant Professor
Associate Provost & Associate Professor
Associate Provost & Assistant Professor

4. Assistant Deans

Assistant Dean & Professor
Assistant Dean & Associate Professor
Assistant Dean & Assistant Professor
Assistant Dean & Instructor
Assistant Provost & Professor
Assistant Provost & Associate Professor
Assistant Provost & Assistant Professor
Assistant Provost & Instructor

Category	Title 85

5. Chairs, Chiefs, Program Director:

Chairperson & Professor
Chairperson & Associate Professor
Chairperson & Assistant Professor
Area Chairperson & Professor
Area Chairperson & Associate Professor
Area Chairperson & Assistant Professor
Professor & Chief/Head, UHC
Assistant Professor & Chief/Head, UHC
Program Director
Program Director & Professor
Program Director & Associate Professor
Program Director & Assistant Professor
Program Director & Instructor

6. Associate & Assistant Chairs

Associate Chairperson & Professor
Associate Chairperson & Associate Professor
Associate Chairperson & Assistant Professor
Assistant Chairperson & Professor
Assistant Chairperson & Associate Professor
Assistant Chairperson & Assistant Professor
Assistant Chairperson & Instructor

7. Directors

Director & Professor
Director & Associate Professor
Director & Assistant Professor
Director & Instructor
Director
Director, University School & Professor
Director, University School & Associate Professor
Director, University School & Assistant Professor
Director, University School & Instructor

8. Division Directors

Division Director & Professor
Division Director & Associate Professor
Division Director & Assistant Professor
Division Director & Instructor

Category Title 85

9. Associate-Assistant Directors

Associate Director & Professor
Associate Director & Associate Professor
Associate Director & Assistant Professor
Associate Director & Instructor
Assistant Director & Professor
Assistant Director & Associate Professor
Assistant Director & Assistant Professor
Assistant Director & Instructor

10. Management Information, Computers

Coordinator Management System Design
Computer Software Specialist
Director Information Resource Management
Associate Director Information Resource Management
Data Base Coordinator
Data Base Administrator
Program Manager University State University System
System Project Director, SAMAS
Director Regional Data Ct.
Associate Director Regional. Data Ct.
Director University Comp. System
Director Florida Education Comp. Project
Comp. Research Specialist
Systems Coordinator
Network Control Coordinator
Associate Director University Comp.
Regional Data Ct. System Program Manager
Regional Data Ct. System Programmer

11. Public Relations, Development

Director of Public Information
Coordinator Educational Media
Vice President Development & Alumni Affairs
Vice President University Relations
Assistant to Vice President University Relations
Associate Vice President University Relations
Director University Relations
Dean University Relations
Assistant Dean University Relations
Director University Development
Associate Director Alumni Affairs
Coordinator Development/Alumni Affairs
Director Information Services
Director Publications
Public Functions Coordinator
Coordinator Professor Rel. Med.
Director Information Public Service
Associate Director Information Public Service

Category	Title 85

12. Physical Plant

Architectural Consul
Coordinator Facilities Program
Construction Consul
Energy Management Coordinator
Director University Safety Security
Director Environmental Health Safety
Radiation Control Officer
Director University Physical Plant
Associate Director University Physical Plant
University Physical Plan Consul
Biol. Safety Officer
Director Space Utility Analysis
Director Physical Plant
Associate Director Physical Plant
Associate Director Environmental Health Safety
Associate Director University Safety/Security
Coordinator Health Center Project

13. Staff Engineers, Etc.

Engineer
Associate engineer
Assistant Engineer
University Veterinarian

14. Financial Administrator

Director Internal Management Audit
Associate Director Internal Management Audit
Director Business & Finance Service State University System
Associate Director Business & Finance Service State University System
Coordinator Business & Finance Service
Director of Budgeting Sys.
Coordinator Budget
Vice President Finance and Planning
Associate Director Budgeting
University Business Manager
University Controller
Associate University Controller
Director Internal Audit
Budget Officer
Budget Analyst
Associate Director Small Business Development
Director Admin. Services
Contract Adm. Cap. Program
Director University BUsiness Service
Associate Director University Business Service
Director University Purchasing
Associate Director, University Purchasing
Associate Business Manager Medical Center
Business Manager, UCF Foundation

Category	Title 85

15. Planning, Inst. Research

Assistant In Planning & Evaluation
State University System Planning Consul
Executive Director University Planning/Analysis
Director University Admininistrative Planning
Director Inst. Research
Coordinator Inst. Research
University Research Editor

16. Human Relations Management

Assistant Vice President, Human Resources
Coordinator Human Resources
Assistant in Human Resources
Assistant to Vice President Human Resources
Director Human Resources
Associate Director Human Resources
Counsel Human Resources
Vice President Human Resources
Assistant Director Human Resources
Director Alumni Affairs
Director University Personnel Relations
Associate Director University Personnel Relations

17. Affirmative Action

Coordinator Human Resources
Director OEOP, State University System
Assistant Director Office of EOP
Affirmative Action Coordinator
Affirmative Action Office
Pace Program Director FSU

18. Student Affairs

Vice President Student Affairs
Associate Vice President Student Affairs
Assistant Vice President Student Affairs
Assistant to Vice President Student Affairs
Director School O'C Student Center
Director Multipurpose Faculty
Associate Director Multipurpose Faculty
Associate Director of IMA
Director Academic Support Programs
Director Student Affairs
Associate Director Student Affairs
Dean Student Affairs
Associate Dean Student Affairs
Assistant Dean Student Affairs
Student Affairs Coordinator
Director, Student Financial Aid
Radio Operations Manager/Program Director
Associate Student Financial Aid

Category	Title 85
19. Housing	
	Director University Union
	Director Auxiliary Services
	Director University Housing
	Associate Director University Housing
	Area Administrator
20. Student Health Services	
	Director Student Mental Health
	Director Student Health Services
	University Psychiatrist
	Clinical Psychologist
	University Physician
	Physicians Assistant
	Associate Director Clinical Services Sth.
	Associate Director Nursing Services Sth.
	University Dentist
21. Public Service	
	County Agent IV - Home Economic Agent IV
	County Agent III - Home Economic Agent III
	County Agent II - Home Economic Agent II
	County Agent I - Home Economic Agent I
	Professor & District Agent
	Associate Professor & District Agent
	County Extension Director & Extension Agent IV
	County Extension Director & Extension Agent III
	County Extension Director & Extension Agent II
	County Extension Director & Extension Agent I
	Director Economic Development Center
	Associate Director Economic Development Center
	Director Government Training Education
	Director Continuing Education Center
	Director Correspondence Study
	Associate Director Correspondence Study
	Continuing Education Center Admin.
	Director Continuing Education
	Assistant Dean Continuing Education
	Continuing Education Coordinator
	Associate Director Continuing Education
	Director Coop. Education
	Director Coop. Education
	Instructional Spec.
	Director Research Center for Child Development
	Assistant Director Center for Child Development

Category	Title 85
22. Libraries, Museums	
	Department Head, University Librarian
	Department Head, Associate Librarian
	Department Head, Assistant Librarian
	Assistant Department Head, Librarian
	Assistant Department Head, Associate Librarian
	Assistant Department Head, Assistant Librarian
	Director University Library
	Director State University System Ext. Library
	Assistant Director University Library
	University Librarian
	Associate University Librarian
	Assistant University Librarian
	Instructor, Librarian
	Director Health Science Library
	Director Law Library
	Director Florida State Museum
	Coordinator University Collections
	Curator
	Associate Curator
	Director University Planetarium
	Director University Marine Lab
	Director Instruct. Serv.
	Associate Director Learning Res.
	Associate Director Instr. Dev.
	Director Instruct. Media
	Director Learning Resources
	Assistant Director Learning Res.
	Director Inst. Graphics
23. Registrar-Admissions	
	Associate University Registrar
	University Registrar
	Director Records & Registrar
	Director of Administration, New Collections
	Director Admissions
	Assistant Director Adm. New Collections
	Operations Research Director

Category	Title 85
24. Student Advisor, Counseling, Placement	
	Coordinator
	Coordinator & Professor
	Coordinator & Associate Professor
	Coordinator & Assistant Professor
	Coordinator & Instructor
	Counselor/Advisor & Professor
	Counselor/Advisor & Associate Professor
	Counselor/Advisor & Assistant Professor
	Counselor/Advisor & Instructor
	Counselor/Advisor
	Director Career Development Services
	Director High School/Junior College Relations
	Liaison Office High School/Junior College Relations
	Associate Director Continuing Education Center
	Director Testing and Evaluation
	Associate Director Testing & Evaluation
	Coop. Education Coordinator
	Director of Student Placement
	Associate Director University Counseling Center
	Director University Counseling Center
	University Counseling Psy.
	Counselor to Students
	Counseling Coordinator
	Student Counsel Specialist
25. Athletics	
	Athletic Director
	Assistant Athletic Director
	Athletic Business Manager
	Athletic Head Coach
	Athletic Coach
	Assistant Athletic Coach
	Athletic Trainer
	Intercollegiate Athletic Trainer
	Assistant Athletic Coach
	Athletic Coach
	Head Athletic Coach
	Director Intercollegiate Athletics
	Assistant Director Intercollegiate Athletics
	Sports Information Coordinator
	Professor Insur. Coord.
	Staff Physicist
	Intercollegiate Athletic Coordinator
	Sports Information Director
	Intercollegiate Athletic Business Management

Category	Title 85

26. University Press, TV

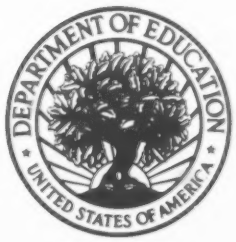
Director of Telecommunications
Director University Press
Director University TV
Assistant Radio/TV News Director
Chief TV Engineer
Director Radio Stations
Radio/TV News Director

27. Teaching & Research Faculty

Professor
Associate Professor
Assistant Professor
Instructor
Lecturer
Graduate Research Professor
Distinguished Service Professor
Regents Professor
University School Professor
University School Associate Professor
University School Assistant Professor
University School Instructor
Research scholar/Scientist
Associate Research Scholar/Sci.
Assistant Research Scholar/Sci.
Research Associate
Physicians Assistant Instructor
Other Faculty

28. Post-Doctorates, Assistants

Associate Instructor
Assistant Instructor
Postdoctoral Fellow
Graduate Research Associate
Graduate Research Assistant
Graduate Teaching Associate
Graduate Teaching Assistant
Graduate Assistant
Research Assistant
Research Associate



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